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THE AMERICAN FARMER,



SPRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." Virg.

Vol. III.

BALTIMORE, JANUARY, 1848.

No. 7.

REPORTS

Of the Committees appointed for the purpose,
TO THE

AGRICULTURAL SOCIETY OF PRINCE
GEORGE'S COUNTY, MD.,

*At the Annual Exhibition, held on the 14th and 15th
October, 1847, at Upper Marlboro'.*

ON HORSES AND MULES.

The committee on Horses and Mules award as fol-
lows:

For the best brood Mare for general purposes,
premium to James Mullikin.

For the second best, premium to Richard S. Hill.

For the best mule Colt, premium to Richard S.
Hill.

For the best pair of matched Horses, bred by the
owner, premium to Charles C. Hill.

For the best pair of matched Horses, for general
purposes, premium to Horace Capron.

For the best saddle Horse, premium to Wm. F.
Berry.

M. PLUMMER,
FIELDER BOWIE,
J. THOMAS SASSCER.

ON DURHAM AND DEVON CATTLE.

The committee on Durham and Devon Cattle were
highly pleased in the examination of the stock sub-
mitted to their inspection. The cattle of Messrs.
Capron and Calvert, in particular, were very super-
ior. The committee cannot speak in terms too warm
of the zeal and public spirit which has been evinced
this exhibition. After a careful review, they
award the following premiums:

To Horace Capron for "Gledow," best Durham
Bull over three years.

To Charles B. Calvert a copy of the *American Farm-
er* for "Montrose."

To Horace Capron for the best Durham Cow,
"Ellen Kirby."

To Charles B. Calvert a copy of the *American Farm-
er* for "Kate," as the next best Durham Cow.

To Charles B. Calvert for "Columbia," the best
Durham Cow, between two and three years.

To Charles B. Calvert a copy of the *American Farm-
er* for "Florence," the next best.

To Horace Capron for "Miss Rockingham," as
the best Durham Heifer, between one and two years.

To Charles B. Calvert a copy of the *American Farm-
er* for "Minerva," the next best.

To Horace Capron for "Red Rover," as the best
Durham Bull between four months and one year.

To Horace Capron a copy of the *American Farmer*
for "Pontiac," as the next best.

To Charles B. Calvert for "Bella," full Holstein,
three years old.

To Charles B. Calvert for "Cynthia," full Alderney,
over three years.

To Charles B. Calvert for "Nina" as the best Dur-
ham Heifer, between four months and one year.

To Horace Capron for "Eclipse," as the best Dev-
on Bull, over three years.

To Clement Hill for the best Devon Bull, between
two and three years.

To Horace Capron for "Dido," the best Devon
Cow, three years.

To William D. Bowie a copy of the *American Farm-
er* for "Magaret," Devon Heifer.

To Horace Capron for "Mary Seaton,"* Devon,
between two and three years old.

To Horace Capron for "Red Lady,"* Devon, be-
tween one and two years old.

To Thomas Blagden a copy of the *American Farmer*.

All of which is respectfully submitted:

WM. D. CLAGETT,
JAMES MULLIKEN,
WILLIAM B. BOWIE.

*Since sold to S. Smith, Esq., of Raleigh, N. C.

ON COMMON CATTLE.

The undersigned committee on Common Cattle, af-
ter a thorough examination of all presented to them,
beg leave to report, that they award premiums to
the following gentlemen, viz:

To Charles B. Calvert for the best Cow, "Die
Vernon."

To Thomas Blagden for the best yoke Work oxen.

To George W. Hilleary for the best Bull, between
one and two years old.

To William B. Hill for the best Bull Calf, between
four months and one year old.

To Clement Hill for the best Heifer, between one
and two years old.

To Robert Bowie for the best Heifer Calf, between
four months and one year old.

To Clement Hill for the best Heifer between two and three years old.

To Richard S. Hill for the two best Fat Cattle.

All of which is respectfully submitted:

POLYDOR E. SCOTT,
SAMUEL H. DORSETT,
JAMES OWENS, Jr.

ON SHEEP.

Seventh Annual Fair of the Prince George's County Agricultural Society, held 14th and 15th October, 1847.

The committee on Sheep respectfully report, that in the execution of the duty assigned them by the Society, they have carefully reviewed all stock of this description which have been offered for premiums at the present Fair, and have awarded the following premiums, viz:

To Charles C. Hill the premium for the best Leicester Buck.

To Richard C. Bowie the premium for the next best.

To Charles C. Hill the premium for the best South-down Buck.

To Wm. N. Dorsett the premium for the best Buck of any other breed.

To the same the premium for the best Ewe of any other breed.

To the same the premium for the best pair of Lambs of any other breed.

To Clement Hill the premium for the best lot of live Mutton.

To Thomas Duckett the premium for the best specimen of slaughtered Mutton.

To Walter W. W. Bowie the premium for the best Leicester Ewe.

To Horace Capron the premium for the best South-down Ewe.

All of which is respectfully submitted:

JOHN B. BROOKE,
D. McC. BROGDEN.

ON HOGS.

The committee on Hogs beg leave to report that they award the premium for the best Boar to Geo. W. Hilleary, for his boar of the curly breed.

They award the premium for the best Sow, over two years old, to the same gentleman.

Premium for the best Sow over one year old, to Clement Hill, for his spotted sow.

Premium for the best litter of Pigs to Clement Hill for a litter of seven.

All of which is respectfully submitted:

THOMAS DUCKETT,
JAMES SOMERVELL,
ALLEN P. BOWIE.

ON POULTRY.

The committee on Poultry beg leave to submit the following report, viz: Premium for the best pair of Jersey Blues to W. W. W. Bowie.

Premium for the best pair of Muscovy Ducks to W. W. W. Bowie.

Premium for the best pair of Puddle Ducks to Fielder Suit.

Those of Mrs. Horatio C. Scott deserve mention.

Premium for the best pair of Geese to Geo. W. Hilleary.

Those of Mr. Robert C. Brooke and Mr. Wm. N. Dorsett are worthy of particular notice.

All of which is respectfully submitted:

JAMES HARPER,
THOMAS G. TOWNSHEND,
GEORGE CALVERT.

ON TOBACCO.

The committee on Tobacco award to James Owens, Jr., premium No. 1 for the best sample of Tobacco.

To John D. Bowling, premium No. 2 for the second best sample of Tobacco.

To Leonard H. Early, premium No. 3 for the third best sample of Tobacco.

To George Morton, premium No. 4 for the fourth best sample of Tobacco.

All of which was respectfully submitted:

JOHN BROOKES,
C. C. HYATT,
MICHAEL B. CARROLL.

ON HOUSEHOLD MANUFACTURES.

The committee on Household Manufactures beg leave to make the following report:

They were sensibly alive to the delicate position that their duties frequently called upon them to assume. Many specimens of work were presented, which were so nearly alike to their unpracticed eyes, that they felt not only difficulty to decide, but great distrust in the correctness of their decision after it was given. If their decisions have been wrong, they have the hapiness to know that it was an error of judgment alone, for they can assure their friends that their hearts are in the right place, and that they have not through favor or affection been swayed from the right course, and they certainly hope that they were not driven into a wrong judgment by fear, for that is an influence which is well known is never exerted by the lovely and amiable daughters of Prince George's.

Many ladies deserve the thanks of the Society for the various beautiful articles that they sent, for which they were aware that no premiums were offered. Among those articles sent merely for exhibition, which would have received premiums if the purse of the Society was at all commensurate with the desire of this committee to reward the merit and industrious habits of their friends,—they would name the pretty worked Basket sent by a lady, to the committee unknown—the Shawl worked by hand, that Mrs. George Morton sent, and the very beautiful Chair-Cover presented by Mrs. Emily Hill. The committee have awarded the following premiums:

Best specimen of home-spun Cloth to Miss Cornelia A. E. Early.

Best home-made Quilt to Mrs. Dr. Bayne.

Best home-made Counterpane to Miss Cornelia A. E. Early.

Best lot of home-made yarn Stockings to Mrs. Ben. Berry.

Best lot of home-made cotton Stockings to Mrs. Ben. Berry.

Best specimen of domestic Cordial to Mrs. Ben. Berry.

Best specimen of domestic Bounce to Mrs. Norah Digges.

Best specimen of Butter to Mrs. W. W. W. Bowie. Handsomest specimen of silk or worsted Embroidery to Miss Digges.

Best wheat Bread to Mrs. Dr. Gray.

Best home-made pound Cake to Mrs. H. C. Scott.

Best home-made sponge Cake to Mrs. James Muliken.

WALTER W. W. BOWIE,
THOMAS F. BOWIE,
SPRIGG HARWOOD.

ON FRUIT.

The committee on Fruit make the following report: That they have examined the various specimens presented—and award the premium to Dr. Bayne for

his selection of fall and winter Apples, viz: French and Holland Pippins, Smith's Cider, Winter Catlin, and Newtown Pippin—all of which were excellent samples of their different kinds.

Also, to the same gentleman for a specimen of Catawba and Isabella Grapes—and a number of unusually large and fine Lemons and Oranges.

Mr. James Owens, Jr., and Richard C. Bowie, each exhibited some very large and delicious Apples, which deserve the notice of the committee.

They award to Mr. Fielder Suit the premium for a very nice parcel of Honey—very beautifully arranged for exhibition.

They also occupied with great pleasure two jars of very beautiful brandied Peaches, prepared by Mrs. M. Plummer; but as the Society have offered no premium for Fruit preserved in this manner, the committee will take the liberty of suggesting that to Mrs. Plummer be awarded a premium of \$2 for the above mentioned Peaches.*

CHARLES H. CARTER,
WILLIAM B. HILL,
THOMAS W. CLAGETT.

*The Society unanimously awarded this premium.

ON AGRICULTURAL PRODUCTIONS.

The committee on Agricultural Productions report: That they have awarded to Col. Horace Capron the premium for the best acre of Wheat; and to Col. John D. Bowling the premium for the best acre of Corn—and respectfully refer to the accompanying certificates for the mode of cultivation pursued by these gentlemen.

They award to Col. Thomas Duckett the premium for the best lot of Vegetables. The committee would remark that for variety and excellence, this lot of vegetables excels any heretofore exhibited.

Col. Walter W. W. Bowie also offered a very fine lot of Vegetables, among which were two new and excellent varieties of the Irish Potatoe, which he calls the "Bowie Seedling" and the "Lady Finger."

Horatio C. Scott, Esq., shew the committee a lot of Mercer Potatoes—very fine—and a specimen of of white hominy corn—very superior. They were not offered for a premium, but the committee think they merit a passing notice. The yield and mode of cultivating the Potatoes accompanies them.

Charles H. Carter, Esq., produced a Pumpkin of extraordinary size. It measured five feet two inches in circumference.

Col. John D. Bowlingshew a fine bunch of Celery, and a remarkably large Beet.

Robert C. Brooke, Esq., shew a specimen of yellow Corn which he denominates "Poor Land Corn," and the committee learned that it will produce on poor land a third more than ordinary corn.

Robert W. Brooke, Esq., four red Beets of extraordinary size—which the committee deem as meriting a notice.

Two heads of Cabbage, raised by Daniel C. Digges, Esq., were fine specimens of that useful vegetable.

WM. N. DORSETT,
BENJAMIN BERRY,
GEORGE W. WILSON.

CERTIFICATES

ACCOMPANYING THE REPORT OF THE ABOVE COMMITTEE.

This is to certify, that we, the undersigned, assisted and superintended the harvesting, threshing and measuring of a piece of wheat taken from a field of about fifteen acres, grown upon the farm of Col.

Horace Capron, which was selected as being an average of the field. (It certainly was not the best part of the field in our judgment.) The piece measured fifty-one yards by seventy-one yards, and contained three roods and three perches of land. We found the contents to be thirty-one bushels and twenty-four pounds. It was the Genesee white wheat, and weighed sixty-three pounds per bushel—the average per acre being 40 84-100 bushels.

ANDREW EMBLER,
JOHN W. EMBLER,
his

Witness—Benj. H. Dorsey. JAMES M. McABERE.
Laurel, October 12, 1847. mark.

This field was taken up from "old fields" in the spring of 1841—improved principally with ashes, stable manure, clover and plaster. Was in clover when fallowed for this in September, 1846; and seeded between the 20th and last day of the same month. Was manured with about 225 lbs. Peruvian Guano per acre—harrowed in previous to being seeded. Kind of wheat, Genesee white—about 2 bushels per acre—harrowed in and rolled.

HORACE CAPRON.

We the undersigned having been requested by Col. John D. Bowling to measure an acre of land, at his farm, Aquasco, which we did, as accurately as we could, without instruments of surveying, and to witness the product of corn from it, do state that it was twenty-one barrels of sound corn; and we also state that the acre was square—had it been laid off differently, we think the product would have been twenty-three barrels.

CHANDLER F. SHAW.
WILLIAM F. RICHARDSON,
WILLIAM WEBSTER.

The above acre of corn was of a field of about twenty acres of heavy bottom land, but not swamp. The land was fallowed about the first of April, and immediately dragged down with a heavy iron tooth harrow, checked four feet each way, and planted on the 20th of April, with the Baden corn, three grains in the hill, but only two stalks suffered to remain, which was kept entirely free from suckers. Its entire cultivation was with Sinclair & Co's expanding cultivator, and one hoeing. This land was not manured. All of which is respectfully submitted to the consideration of the committee on Agricultural Productions.

JOHN D. BOWLING.

MERCER POTATOES—Raised on my Woodstock Plantation.

The land was prepared for tobacco in the usual manner of repeated plowing, dragging, &c., and in the latter part of May laid off in drills three feet apart and the potatoes planted (cut in slips of two eyes to each) about ten inches apart, and covered with hoes—worked twice with plows—less than one and a half bushels seed—and gathered 6th October, and measured 53½ bushels of fine sound potatoes. The ground not measured, but supposed about ½ of an acre. I also planted in same manner about 12 bushels mixed potatoes, and gathered thirteen heavy ox cart loads.

October 14, 1847. HORATIO C. SCOTT.

We, the subscribers, hereby certify that we have carefully measured an acre of corn, belonging to Wm. R. Barker, Esq., and found the product to be, by accurate measurement, nineteen barrels and 4 bushels of prime sound corn. We further state, that in our opinion, at least from one two barrels were destroyed by hogs.

JAMES A. DEMAR,
JOHN D. DEMAR,

Test—S. G. R. Gallaher. CHARLES DEMAR.

I accompany the above certificate with the following statement, to wit: The land from which this product was taken, was fallowed early in January from wheat stubble. On the 10th of April, checked and planted four feet four inches apart, four grains in each hill, covered with a hoe, and not thinned, but suckered twice, each time using a sharp knife, instead of being pulled off. After the corn was planted, a heavy iron tooth drag passed over the field. Then we commenced with the corn cultivator, going over the field twice in about twenty days. The plow succeeding the cultivator, throwing the earth to the corn with the mould board—which superceded the necessity of hoeing: the last working was given with the corn cultivator, and laid by. The seed corn was procured from Mr. Joseph L. Turner of this county, who had cultivated it for perhaps twenty years—it bears about two ears to each stalk. The acre which produced this crop was cultivated in 1843 in corn, 1844 in wheat, 1845 in tobacco and corn, 1846 in wheat, and 1847 in corn—and now being seeded in wheat, without ever being manured.

WILLIAM R. BARKER.

ON AGRICULTURAL IMPLEMENTS.

The committee on Agricultural Implements award to R. Sinclair, Jr. & Co. the premium of \$3 for the best plough; the premium of a copy of the *American Farmer* for the second best plough; the premium of \$5 for the best set of implements for the cultivation of corn and tobacco; the premium of the *American Farmer* for the best fanning mill or wheat fan; the premium of \$5 for the best horse power and threshing machine; the premium of the *American Farmer* for a grist mill, Special premium \$5, a new and valuable machine. Which they respectfully submit to the Society.

JOHN BROOKS,
HENRY A. CALLIS,
THOMAS S. IGLEHART.

TREASURY REPORT.

The Treasurer of the Prince George's Agricultural Society states: That his last annual report shew a deficit for 1846, of - - - \$42 55

He has received on account of subscriptions, (other than Farm Premiums,) for 1847, \$279 00
Received for entrance tickets, - - - 83 87
From sales of premiums, - - - 2 00
From sales of dinner tickets, - - - 47 00

\$411 87
Received on subscriptions to Farm Premiums, 85 00
Surplus on Farm Premiums, 1846, - - - 2 75

\$499 62
And paid F. Suit for dinner, - \$25 00
" John R. Walker for commission, &c., - - - 15 00
" Thos. R. Brooks, commission, - - - 1 25
" Gate-keepers and keeper of the court house, - - - 13 15
" S. B. Anderson per account, 1 64
" Jas. H. Crandell per account, 1 00
" F. Suit for Lot, - - - 45 00
" Account for printing pamphlet of address and proceedings of 1846, and advertising in 1847, - 53 81
" For Dr. Bayne's premium

of 1846, (not taken,) - 5 00
" For Badges and expenses for getting premiums, - 10 00
Amount retained to pay for 9 copies of "American Farmer" awarded as premiums, - - - 9 00
Estimated cost of premiums distributed, - - - 300 00
479 85
\$19 77

Leaving \$19 77 to be applied to the liquidation of the deficit of last year. There is due the Society for subscriptions an amount sufficient to meet the balance of the deficit.

All of which is respectfully submitted.

GEO. W. WILSON, Treasurer.

On motion of ROBERT BOWIE, Esq., the following was offered as an amendment to the constitution, to wit:

"That this Society may elect honorary members at their stated annual meetings."

On motion of W. W. W. BOWIE, Esq., the following was offered as an amendment:

"Provided such honorary members reside without the limits of the State of Maryland."

The amendment was adopted, and the proposition, as amended, was rejected. The thirtieth article was so amended as to read:

"No person but a member of the Society shall compete for premiums."

The society proceeded to elect its Officers for the ensuing year—when the following gentlemen were chosen:

President—WALTER W. W. BOWIE.

Vice Presidents—JOHN H. BAYNE, JAMES MULLIKIN, JAMES SOMERVELL, CLEMENT HILL, WILLIAM H. TUCK, THOMAS W. CLAGETT, WILLIAM D. BOWIE, SAMUEL H. DORSETT, JOHN H. SOMERVELL and THOS. BLADGEN.

Corresponding Secretary—THOMAS F. BOWIE.

Recording Secretary—DANIEL C. DIGGES.

Treasurer—GEORGE W. WILSON.

Executive Committee—ROBERT BOWIE, WILLIAM N. DORSETT, HORATIO C. SCOTT, RICHARD S. HILL, and THOMAS S. IGLEHART.

The Society then adjourned.

HORATIO C. SCOTT, Pres't.

DANIEL C. DIGGES, Sec'y.

PROCEEDINGS.

The Committee appointed to examine Farms, Stock, Implements &c., made the following reports, which were read and adopted by the Society, and the premiums awarded as recommended therein:

BEST REGULATED FARMS.

The Committee on best Regulated Farms, have the honor to report, that they proceeded to the discharge of their duties as soon as practicable, after receiving notification from the different competitors, that their respective farms were ready for inspection.

Col. JOHN D. BOWLING.—The attention of your committee was first invited to the estate of this gentleman. His farm contains considerable upwards of one thousand acres, and may without hesitation be pronounced a most magnificent one. It embraces several hundred acres, without the slightest elevation; the soil an alluvion, and consequently, almost inexhaustible. The undulating proportions have been improved by the application of clover and plaster,

and are peculiarly adapted to the growth of beautiful tobacco, as the account of sales from his commission merchants abundantly testify. The crops upon this farm were incomparably finer than any we have elsewhere seen. The abundant crops and the healthful condition of every thing, both animal and vegetable, proved to the committee that this estate was conducted upon a system of masterly activity.—But, what is it not possible to accomplish, where Providence has been so profuse in the distribution of his choicest gifts; and under the direction of so methodical and energetic an agriculturist as its proprietor? We also take great pleasure in referring to the agency and great merit of his manager who, for his indomitable zeal and great interest always manifested for his employer, not only deserves high commendation, but should be held up as an exemplar in his vocation.

Mr. JAMES SOMERVELL.—Adjoining the last farm described, and next in the line of observation, was that of Mr. Somervell. The committee commenced their operations by viewing the surrounding fields, the general appearance of which indicated a great change from what they formerly presented. The products have been more than quadrupled since it has come into the possession of its present owner. A great portion of the farm seems to be constituted of such intractable materials, that no man who did not adopt the motto of *nil desperandum*, could reasonably anticipate even the remote prospect of converting it into a productive one. It has, however, been wonderfully improved and renovated in the last few years by ditching, fencing, clearing, grubbing, manuring, and by the application of clover and plaster, to such portions as will respond to its magic influence. His stock we found in good condition, and we were pleased to find roots cultivated quite extensively for their consumption. Farming implements, such as ploughs, harrows, hoes, &c., were carefully arranged and deposited in a house provided for the special purpose. The committee regret to say, that the grounds around the house presented rather a neglected appearance, but we entertain no doubt, inasmuch as the worthy owner has recently re-entered the state of conjugal felicity—he will by the influence of an interesting counsellor, soon direct his attention to their improvement and decoration.

Mr. CHARLES C. HILL.—The committee by invitation next visited the farm of this gentleman, which afforded them great pleasure. System, neatness, and precision prevailed in every department, both externally and domestic. Here were visible the precursors to a brilliant success in agriculture—and indeed it was written in characters too legible not to be read by all,—a beginning which must lead to an enviable distinction. With the blessings of youth and health, and with his chart already laid down, we hail him as a beacon light, to illuminate the pathway of those who may follow in his wake. The soil on this farm is a beautiful sandy loam, the greater portion of which is adapted to the use of clover and plaster, which will greatly augment its fertility. We believe that lime would be found a valuable adjunct to the list of manures upon his farm. Lime has the power of developing many latent elements contained in the soil, and converting them into humus, which is the great fructifying principle. The committee observed with great pleasure, that his buildings of every description were constructed on the most approved and economical plans, embracing great convenience and durability. His agricultural imple-

ments were highly burnished and most systematically arranged, with every thing showing a determination on the part of the proprietor, in time, to be second to no man in the county in the science of agriculture.

Mr. ROBERT BOWIE.—Here is an estate naturally destitute of those elements, which are so essential for rendering a return commensurate with the labor bestowed. But by the indefatigable efforts of its present owner, it has been astonishingly resuscitated and enhanced in intrinsic value. Great judgment is evinced in the cultivation of this farm; also in the division and sub-division of it into fields and lots—all of which are substantially and neatly enclosed. To the briars, sassafras and other pests which seem to have been the spontaneous production of this soil, the owner has cried aloud and spared not. Swamps have been made dry, and many once barren spots are now clothed with luxuriant verdure. We believe that a large portion of this estate is not susceptible of acquiring and sustaining a high degree of fertility without the aid of some mineral manures. They will give stamina to the soil, and a permanency and fixidity to the vegetable manures which cannot otherwise be obtained. For its natural resources, we find no where in the scope of our examinations, an equal quantity of manure produced annually. Twelve hundred and ninety loads of various descriptions have been hauled out and applied since April last. His stock consists of mixed breeds, and are in good condition. We saw here several acres under cultivation in different kinds of roots, which promised an abundant yield. We must not omit to say, we saw with great pleasure several hundred fruit trees, of very thrifty growth. It is believed that no farm in the county exhibits a more determined industry and a better system of husbandry than the one owned by the late President of this Society, and the committee sincerely hope that he may live to receive a long and full fruition of all those temporal blessings which he so richly merits.

Col. W. W. W. BOWIE.—This farm though last on the list of examinations by the committee, it will subsequently be discovered, was not in their estimation the one which possessed the least merit. Here is land naturally sterile, and possessing few attractions, but has, under the system of management pursued by its owner, in a few years been brought to a state of high fertility. The improvement has been the result of the judicious application of manures, and of clover and plaster; but principally from manures, a great portion of the land not being adapted to the growth of clover. The present melioration of the soil compared with it a few years back, is so apparent as to excite the admiration and astonishment of all. In the emphatic language of its proprietor, it was broken and abounded in swamps, marshes, green briars, alders, galled knolls, broom sedge, and poverty grass. He commenced his agricultural career with this formidable array of impediments, which would have been sufficient to intimidate any one but the gallant Colonel. But spurred on by an ardent love of agriculture, he has come off more than victor—demonstrating to the most incredulous, how exhausted farms, even with limited pecuniary ability, can by untiring industry and skilful treatment, be brought to a high state of productiveness. Here are achievements won by the plough, which we think merit a more permanent distinction, than all the blood-stained trophies of the most successful general.

Every thing upon this farm indicated a system of progressive improvement. And it was with pleasure

the committee observed the great taste displayed in the cultivation of choice fruit and ornamental trees. His barns were in good condition, and he has provided ample accommodation for his stock. As the farm depends principally on its own resources for manure, great economy seems to be practiced in the accumulation of every description of vegetable matter. His plan for the purpose of increasing manure in the arrangement of his farm yard, struck the committee with considerable force; and as it is not usually adopted, we here take pleasure in recommending it. It simply consists in the excavation of the middle of the yard, which causes all the liquids to concentrate upon one point; and to avoid the accumulation of the fluids from being deleterious to the stock, they are immediately conducted off by an under drain to a large reservoir on the outside. The depository is kept filled with absorbents, which are soon converted into a valuable and nutritious manure.

We were pleased to find also, that Guano had this season been applied to some extent upon land intended for wheat. This is unquestionably one of the cheapest, most profitable and concentrated fertilizers, that can be employed by the farmer. By its prompt influence, it not only soon reimburses by an increase in the crop to which it is applied, but leaves the land in fine condition for the growth of clover. We were informed, that on the thin sandy portions particularly of this farm, there was great difficulty in obtaining a set of clover, in consequence of its being destroyed by the intensity of heat during the first summer. From observation and experience, we think this may in a great measure be obviated, by sowing the clover during the fall and spring months upon corn or other land without grain.—The clover when sowed alone starts with more decided vigor, and soon becomes so thrifty and well rooted, as successfully to resist the droughts of summer.

A conclusive evidence in favor of the highly improved condition of this farm we find from the undoubted authority of its proprietor, who took it but nine years ago in the state already described, and by his system, has given it capacity to produce, at the rate of one hoghead of tobacco, fifteen bushels of wheat, or ten barrels of corn per acre; yielding an interest according to his statement of nearly seventeen per cent. upon the capital invested.

Your committee cannot conclude this report without briefly referring to the courtesy and elegant hospitality which they received upon every occasion, during their official investigations, and sincerely hope opportunities may be afforded them of reciprocating in their way.

The committee have now arrived at the delicate part of their responsibility—viz: that of awarding the premiums according to the relative merits of the competitors. Indeed, could they pursue a course in accordance with the prompting of their own feelings, they would most cheerfully award premiums to all; because they believe that all merit them; but, as that is not practicable at this time, they have determined to adjudge the first to Col. W. W. W. BOWIE; the second to Mr. ROBERT BOWIE, and the third to Col. JOHN D. BOWLING.

All of which is respectfully submitted by

JOHN H. BAYNE,
SAMUEL H. DORSETT,
JAMES MULLIKIN,

A drop or two of honey well rubbed on the hands while wet, after washing with soap, prevents chapping.

REPORTS

Of the Committees appointed for the purpose,
TO THE
AGRICULTURAL SOCIETY OF TALBOT
COUNTY, MD.

At the Annual Fair and Cattle Show, held on the 10th and 11th November, 1847, at Easton.

Report of the Committee on Farms.

The Committee on Farms report, that they entered upon their duties at the earliest practicable period, sincerely anxious to perform them in a manner worthy of the cause entrusted to their charge. Attributing to the Societies both a liberal disposition to reward merit and prudent desire to derive somewhat of advantage to the agricultural community in whose behalf they stand forth, it was the aim of the committee, while obtaining such facts as would enable them to decide with impartiality, to gain such information as might prove palpably useful. With these purposes in view, they left with the competitors for premiums on farms not rented a series of questions, embracing as they believed, many of the points essential to good management.

Although, with a proper allowance for the circumstances and a due respect for the modesty, which have been the cause, they have to regret that a worthy competitor should have withdrawn, and that these questions have not been answered by the two remaining upon the field with that exactness which alone could enable them to make a systematic report, it becomes them to declare, that the merits of both and the grounds for deciding between them are such that they could not, without the introduction of a practice which might at present be too rigid, decline awarding the premiums.

As the statements furnished contain to a great extent, the grounds of decision, and constitute the interesting portion of their report, they respectfully call the attention of the societies to them:

Statement of Mr. Samuel Hambleton.

NEAR ST. MICHAELS, Oct. 12, 1847.

GENTLEMEN:—The farm which I have, with so much temerity offered for premium, was purchased by me in 1812, and at that time, contained 175 acres. In 1826 I added ten, and in 1829, ninety-eight acres; so that it now contains 283 acres.—The greater part of it was dead poor—little of it repaid the cost of cultivation.

I did not settle on this farm until 1820, and was not able to give it much personal attention for many years. The principal improvements have been made from oyster shell lime, seaware, marsh mud, heads of creeks, and the produce of the farm yard. It is generally believed that I have expended much money on it. I regret that I am unable to shew the amount of my early purchases of manure, that you might judge whether they were judiciously made or not. My purchases for two or three years past have been considerable—much more than the whole of the years preceding—I have 2000 bushels of ashes, in heaps, for next year.

My system has been that of four fields without fallow—but I am under the necessity of giving it up, on account of the increase of blue grass.

The enclosed account of crops for about twenty years is all that I am able to furnish.

Very respectfully, your ob't servant,

S. HAMBLETON.

Messrs. Holliday and Goldsborough.

Communication of Corn Planter, in the American Farmer, Vol. 12, page 162, to which they were referred for an account of the labors and success of Mr. William Hambleton.

TALBOT CO., EASTERN SHORE MD., Oct. 12, 1831.

MR. SMITH:—I do not know how I can more satisfactorily answer the polite call of "Potomac," than by giving some account of improvements made on one of the farms alluded to in my last, by the application of bank shells, seaware, marsh mud, and heads of creeks, aided by a well conducted farm yard. These have been so remarkable as to have had a beneficial effect in this county, and I think such examples should be made known as widely as possible for general benefit.

I select this farm, *Emmerson's Point*, in particular, because no one can pretend that capital had any agency in restoring its fertility. It lies near the mouth of Miles' river, emptying into the Eastern branch of the Chesapeake Bay, and contains two hundred and seventy-five acres. It was purchased by the father of the present proprietor, Mr. Wm. Hambleton, about the year 1790, at 40s. Maryland currency—or 5.33 dollars per acre, and was occupied by a tenant, as it had been for two or three generations, until the year 1808, when the proprietor married and settled on it.

The soil is a stiff, yellow clay—growth chiefly pine; it was worn down to the lowest state of sterility: a considerable portion had been suffered to run into pine thickets, where the corn ridges are still visible; and it was nearly destitute of the buildings indispensable to a farmer. But the means of improvement were at hand: the proprietor knew their value and lost no time in availing himself of them. He had no capital of any kind, but he was young, skilful and industrious. Having no slaves, he commenced with two hired hands, and, occasionally, two boys; two Horses and a yoke of Oxen. The arable land was one hundred and twenty-nine acres; but his operations for many years were confined to ninety nine acres—a poor field of thirty acres, distant from his resources, he left idle, uncultivated. He laid off these 99 acres as follows: two fields of 45 acres each—two lots, 5 and 1 1-2—orchard and garden, 2 1/2 acres. For his first crop, to make a push, he selected his best land, including the old tobacco ground near the house. From 45 bushels of wheat seeded Sept., 1807, he got a crop of 115, less than three for one. In the spring of 1808 he planted corn on one half of his other field, after getting out a considerable quantity of bank shells and seaware, and left the other half, under the same enclosure, for fallow, to be manured as opportunity might permit during the summer—and this place he continued to fallow for about eight years, and would have continued it longer but for the inconvenience arising from the want of pasture. It is to be regretted, that he did not keep an exact record of all his crops: however, he assures me that the following may be depended on as very near the truth. His first crop of corn was 85 barrels—his second 35, of which 30 were short corn. (It may be well here to mention that a barrel of corn is five bushels of grain, or ten bushels of ears.) His second crop of wheat was 250 bushels from 45 of seed, being 5 1/2 for one. His third crop, 350, nearly eight for one. Fourth, 500—fifth, 700, and so on, increasing every year until the year 1816, having altered the arrangement of his fields from two of 45 to three of 30 acres each, he reaped from 67 1/2 of seed a thousand bushels of prime wheat—one-

half on corn land, the other fallow. This crop he had the good fortune to sell at \$2.91 cents per bushel, and the good sense, although not pressed, to apply the proceeds to the payment of debts necessarily contracted in the erection of buildings, among others an excellent barn, and the purchase of three or four boys, and various expenses incident to a new establishment and growing family.—It should be remarked, also, that, until the end of the year 1818, his land was burthened with a third of the estimated rent, as dower.

No memorandum can be found for the crops of the three succeeding years, nor does he recollect the amount; but they were not so great as that just stated. He failed in one crop from defective seed which he purchased. In 1820 he reaped 1127 bushels from 90 of seed, 30 of which was sown on the out-field before mentioned. This, and several other crops, to be noticed, he has on record. In 1823 his wheat crop from 72 was 1039 bushels—nearly 14 1/2 for one.

In 1830, from 88 of seed, he reaped 1497 bushels of wheat, 17 for one; one-half from corn land, the other fallow, 30 acres each; the fallow yielded 25 for one—see some account of this crop in the Farmer, about July, 1830.

Last year, being much occupied in repairing and building, he seeded only 50 bushels of wheat, which produced a crop of 628 bushels—all this was on corn land, except a lot of five acres, which, from 7 1/2 of seed gave 157 bushels—nearly 21 for one.

I have confined myself principally to an account of his wheat crops, because he could not inform me with so much accuracy the amount of his corn crops—they were generally good, seldom falling below three barrels to the thousand, and frequently reaching four. His greatest crop of corn was in 1827, from two of his 30 acre fields, 520 barrels.

Last year he bought 5000 bushels of oyster shells at the cost of \$100—burnt and spread them, as far as they went, at the rate of 200 bushels per acre, just before planting corn, on the out field, which got also a dressing of farm yard manure. The crop of corn just gathered is fair—few in the county better. His shell banks giving out and the drifts of seaware being less abundant than formerly, about eight years ago he commenced the use of marsh and heads of creeks, of which he thinks favorably, paying strict attention to the farm yard and compost heaps. He has one now containing upwards of 1000 skates, or double-heads, taken a few weeks ago in his seine—from this he calculates on a thousand cartloads of manure for his corn land next spring. From their livers he extracted seventy-three gallons of oil. From experiments made last year with similar oil he is of opinion that it is a remedy against the worm so destructive to the peach tree. He does not spread seaware so thick as I recommended in my last, on account of the difficulty of ploughing in—nor would he recommend the shell to be put so near—intervals of five lands should be left, between marsh, &c., three. I readily yield to his superior judgment.

For fourteen or fifteen years past he has made use of the sickle—much of his wheat being too rank for the cradle. He ploughs about four inches deep, and cannot be induced to go deeper—in good land sows a bushel and a half to the acre—in poor, one bushel; breaks his fallow ground about the middle of June—cross ploughs soon after harvest—rolls and harrows, and, if likely to be grassy, gives it a third ploughing—puts in with the plough very shoal, in narrow ridges, keeping his manure near the surface. I consulted him respecting the question of "Potomac."—

He is of opinion that no danger is to be apprehended from the application of rotten marsh to growing crops, if put on in reasonable quantities.

It will be observed that this farm, notwithstanding its rapid improvement, has been *severely cropped*—present gain, from necessity, being the main object. The proprietor was not insensible of the value of clover as an improving crop, but he could not let it remain long enough to be of much use to the land. He never cut but one field of it, 1825, upwards of 50 tons from 30 acres. Hereafter, having got his out field in pretty good order, he will adopt the four field system, cutting one field of clover every year. His regular force is five able hands with some small boys. He runs three ox and two horse carts—has never kept an overseer, and for many years labored daily. I have not thought it necessary to state his root crops, the produce of his hog pen, &c., supposing that his principal crops would clearly show the progress of improvement.

[Some other matter not relating to this farm, omitted.]

CORN PLANTER.

This last statement, as far as it goes, is its own best commentary, and the committee would not cast a shade over its interest by attempting either to enlarge upon or condense it; but as the best summary of good management is, the success which has resulted from it, they here note the fact, that taking into view the whole of Mr. Hambleton's acquisitions and improvements, he has, besides supporting a large family in comfort, in the course of 40 years, by diligent attention to farming alone, increased his property twenty fold. In other words, he has realized an average interest of 50 per cent. on his original capital.

It is almost superfluous to add, that they found in the general condition of his farm evidences of good management, which characterize the neighborhood in which he lives. And although it may be said, that the present value of his estate, is in a measure owing to the fact that the prices of lands around him ranges rather high, it should be borne in mind that inasmuch as he was one of the first, if not the very first, to commence the system of thorough manuring, which has increased both their intrinsic and their market value, his merits are only placed the more above detracting. His claims to the first premium are such that the committee need not play around the point; they unhesitatingly award it to him. May he long hold it at its proper value, as a tribute from a portion of the many who have derived benefit from his example; and may those of his descendants to whom in turn it shall pass, with a share of his possessions, ever bear in mind that, in order continually to enjoy the *independent swing** he has provided for them, they must emulate his diligence.

The fact that Mr. Samuel Hambleton stands without a competitor for the second premium would be no reason for assigning it to him. He enjoys the reputation of being an expensive farmer, and he indirectly pleads to it as a charge. That he has made free use of his funds in adding to the productive properties of his soil, in improving the general condition of his farm, and in collecting around him improved stock of every description and providing for their comfort, is with the committee strong presumptive evidence in his favor. His statement shows that al-

though frequently called away by his official duties, and although his purchases of manure, with the exception of lime, have been inconsiderable, he has some how managed to increase the average of his wheat crop 25 per cent in the course of 12 years, and his corn crop 40 per cent. in 16 years.—Yet as he stands to all appearance, so far below his competitor and a great many of the farmers around him as regards the increase in his productions, they would have been exceedingly doubtful as to his pretensions, had they not perceived in him other merits, so high in their character that it would poorly become the agents of two societies for the promotion of agriculture, to let them remain hid under the bushel. Truth requires them to say, that while the character of the soil and the facilities for transportation, render Talbot County, and especially that portion of it in which Mr. Hambleton resides, best adapted to the production of grain—the adaptation is not exclusive—and had he no other merit, it would be sufficient with the committee to know, that he has liberally used his funds in collecting around him improved stock of every description, that by a reasonable provision for their comfort, he continues to raise them with success, and that he is at all times willing to sell them to his neighbors at moderate prices.

They think he well deserves the second premium. Belonging as he does to the most worthy and modest fraternity of Bachelors, amongst whom a majority of the committee have claims to be enrolled, he has their best wishes, that he may long enjoy his freedom, if it continue to please him, and that all his enterprizes may be brought profitably to bear.

The competitors for premiums, on rented farms, are Mr. John Baynard, and his nearest neighbor, Mr. James Auld—both rented by the year. Mr. Baynard's merits, were placed before the societies in their strongest light a year ago. A second visit from the Committee some time in August, found every thing as it should be. His crops of wheat had been unusually good; his corn shewed the effects of thorough manuring and judicious cultivation, and his large collections of manure testified that his diligence was unabated. Mr. Auld seemed but little behind him, as though he had observed him at every turn—in one particular he seemed to have the heels of him, his judgment in breeding stock, especially Mules and Horses. But inasmuch as Mr. Auld, with the aid from his Landlord of a considerable quantity of purchased manure, delivered on the farm, could not show a larger quantity ready for his next year's tillage, and inasmuch as Mr. Baynard has shewn a large increase in his productions, and no evidence has been presented on that head by Mr. Auld—they award the first premium to Mr. Baynard, the second premium to Mr. Auld.

Having disposed of the premiums, the committee, in nothing designing to reflect upon the worthy competitors, to whom they have been assigned, or to step beyond the limits of their duty, use the occasion to offer a few remarks, which may not be out of place.

Although there does not exist the farmer who either knows or practices all things in relation to his occupation, better than every one else—not one who might not have his wits a little sharpened by passing through the hands of a committee, and being held up in comparison with another, there are many amongst us of sound intelligence, whose management, were it made known, would be creditable to themselves and beneficial to others; many who would well deserve the premiums which are yearly offered, (if they

*Mr. William Hambleton has a fine shed in his yard, where he has placed 5 swings, one for each of his grand-children.

would only shew the spirit to compete and the humility to be questioned by a committee, which might not happen to be composed of as good farmers as themselves)—such men deserve the encouragement of the societies, and the societies in turn deserve encouragement from them. The cordial co-operation of the societies and the arrangements which they have jointly made, afford ample evidence that they are moved by a thorough-going spirit—that their object is to elevate the standard of agriculture—to ascertain the improvements which have been going on—to discover with some exactness the means which have been employed and mark their progress—that all may have an open and measured path up to the highest level, and the many who grope in darkness may walk in light.

The cause in which they are engaged is good, their object rational, and therefore to be attained; the means they use are liberal, their plans are well conceived, and nothing seems wanting to success. But as was of late justly remarked by a hero, whose high claims to the title are, that he has always been just near enough to success to be defeated, and has always been ready with an excuse—"The most skillful combinations may be disarranged, and the most perfect designs thwarted by the failure of any one concerned in them to perform his duty." So with the cause in which the societies have embarked, a little accident, which prudence can avert, may bring disaster. Committees may fail to perform their duties advantageously, for the reason that competitors may fail to give all the information which they might.—With a view to avoid this danger, they respectfully suggest, that the societies take upon themselves to define the principles which should be applied in awarding the premiums and especially reserve the right to judge as to the propriety of any questions which may be submitted by a committee, and excepted to or not answered according to the best of his knowledge and belief, by a competitor. They feel justified in saying, that such precaution will promote confidence between their committees and themselves on the one hand, and the competitors on the other, and will ensure the perfect respect of those for whose good they act, and by whose good opinion they must be sustained.—They have only to add, that although they give up with regret their hold upon a station whence fresh avenues to social intercourse, and new fields for observation might continue to be opened to them, an honest conviction that the principles of rotation, judiciously applied, would be advantageous, and that there will not be wanting others whose knowledge and practical ability will eminently fit them to occupy it, would alone be sufficient to make them claim a release from its duties, which they have now a second time most imperfectly fulfilled.

THOS. R. HOLLYDAY,
J. McDOWELL GOLDSBOROUGH, } Com.
WM. B. WILLS.

Report of the Committee on Asses and Mules.

Your Committee have examined the Asses and Mules, presented for their inspection, and do award as follows:

Best Jack, Perry G. Stevens,	\$8.00
Second do. Henry C. Tilghman,	5.00
To John N. Hambleton's Grey mule over 3 years old,	6.00
To John N. Hambleton's Brown Mule over 3 years old,	4.00
To John S. Martin's Bay Mule under 3 years old,	5.00

To James N. Goldsborough's Bay Mule under 3 years old, 3.00

They had great difficulty in forming their judgment, owing to the very many prime Mules presented.

CHAS. H. HARDCASTLE, Chairman.

Report of the Committee on Cattle.

The committee, to whom was referred the awarding premiums for cattle, beg leave to report: That in their opinion in this branch of exhibition of yesterday, never before was there at the agricultural shows in Talbot, so fine a display of cattle or so close a competition for the several premiums to be awarded. The committee have, therefore felt more sensibly the difficulty of the task imposed upon them. In forming their judgment they may in some instances have arrived at erroneous conclusions; they are happy to say however, that in almost every instance the premiums were awarded by the unanimous voice of the committee, and from that circumstance, they have greater confidence in the correctness of the judgment they passed on the merits of the several animals submitted to their inspection.

The taste of the committee was in almost every instance the ground-work of their judgment, as they received no satisfactory information as to the breeds or crosses of the animals competing for premiums. They would have been gratified to have received information, and they asked for it, as to the age and breed of each animal, the manner it had been reared, and what treatment it had received from its owner; but either from oversight or from some other cause, this information was not furnished. The appearance of the animal was in almost every case the sole criterion by which the committee had to make their award. If that award then be entirely correct, it will be a matter of surprise to us all, and could scarce be expected. The committee, however, acted to the best of their judgment, and they trust with this explanation of the difficulties they labored under, their award will prove satisfactory.

The agriculturist who has observed the happy advance in the agriculture of the Eastern Shore, cannot fail to have noticed that the improvement in cattle, has been commensurate with the improvement that has been made in the soil.—The liberal minded and enlightened farmer is not content that his soil should by his untiring industry grow rich and become productive, but he turns his attention to rearing domestic animals of the finest points and symmetry, and possessing the other most valuable qualities. The success which the attentive breeder of the cattle meets with in the increased value of his stock, should encourage every farmer to give to this branch of agriculture his strictest attention.

It has been said, that a high bred and valuable animal consumes no more provender, and requires no more care than one of inferior quality. This remark is peculiarly true in reference to cattle. The fine valuable cow, (domestic and docile,) which fills the pail to overflowing, and which the milk-maid delights to milk, for she is repaid for her labour, cost the owner no more in her keep, than the wild and vicious cow which yields scarce half the quantity of milk, and is in other respects not half so valuable. It costs the farmer no more to rear, break and train a valuable ox, which by its patience, fidelity, and enduring labor, fully repays his every care, than it does to rear one, which is stubborn, slow and faulty, and which no care can render a valuable work animal. True economy then in breeding cattle consists in rearing the best. They always repay the expenditure of care and attention which is bestowed on them.

And the farmer may look with pride and satisfaction on the success of his efforts, which brings to him the surest profits. Particularly so, when we have in view the fact, that the farmer who has established the character of a successful breeder of cattle, always finds a ready market for his animals, and has no difficulty in disposing of them to purchasers at the best prices. It may also be remarked, that to those sections of the country, where the best cattle are reputed to be raised, purchasers always resort.

Those who offered their cattle yesterday for premiums, seemed by their successful efforts in rearing this species of domestic stock, to be convinced of the truth of the remarks we have just made, and we doubt not they will be recognized by all who will give them more than a cursory examination as correct and true. We would desire to encourage every agriculturist to enter into a spirited competition in raising none but the best cattle. The best in fact cost no more, perhaps less, than the worst, and true economy dictates to the farmer, that in this branch of agriculture, he should make the most of his skill and attention.

The marked improvement, which has so manifestly taken place in the cattle of the Eastern Shore, since the agricultural exhibitions were first commenced, has not escaped the notice of the committee, and is a subject which has no doubt, attracted the attention of your several agricultural boards. We here mention it, for the purpose of calling the attention of those, who may not have otherwise observed it. This of itself demonstrates, the highly beneficial influence exerted, by those agricultural exhibitions, and should encourage every member of an agricultural community to a generous competition.

We have no further suggestions to offer, in relation to this branch of Agriculture, other, than to say, success will be sure to crown the judicious efforts of the cattle breeder, in the improvement of his stock. The fine specimens of cattle exhibited to our inspection prove incontrovertably the truth of the proposition. We would also say to other farmers and breeders, push onward in your efforts, and you too may expect the same success, as you have witnessed in the exhibitions of your neighbors' cattle, to whom premiums are awarded.

One other suggestion to the agricultural boards and we are done. If at the future exhibitions, the competitors for premiums for cattle, were in each case required to furnish a brief statement of the strain and cross of his animal, the manner it was reared, its exact age, and if a cow, the quantity and quality of her milk for a given period, such information would be of very great advantage, and would furnish those who may at a future agricultural exhibition award premiums much more correct data on which to form their judgment than has been in the possession of the committee in the present instance.

With these remarks we will proceed to state the award we have made of the several premiums for Cattle as follows:

Best Bull over 2 years of age, to William B. Willis.
Second best Bull over 2 years, to Nicholas Orem & Wm. H. Fairbanks.

Best Bull under 2 years of age, to Jas. L. Martin.

Second best Bull under 2 years, to Edward M. Dawson.

Best Cow, to Jas. L. Martin.

Second best Cow, to Edward M. Dawson.

Best Heifer, to Jno. W. Martin.

Second best Heifer, to Samuel Catrup.

Best yoke of Oxen, to Edward Martin.

Second best yoke of Oxen, to Henry Hollyday.

Best ox Driver, to negro man Hezekiah Gibson, the driver of the yoke of oxen to which was awarded the 1st premium.

Second best ox Driver, to negro boy Tom Smith, the driver of the yoke of Oxen to which was awarded the 2nd premium.

Best Beef, to Jas. N. Goldsborough.

Second best Beef, to William B. Willis.

All of which is respectfully submitted by the Committee.

R. C. HOLLYDAY,
ROBERT BANNING,
JOHN H. HARRIS,
SAML. EMERSON,
W. HEMSLEY, M.D.

Report of the Committee on Sheep.

The Committee appointed to inspect and award premiums for the best Sheep exhibited at the Talbot County Agricultural Exhibition, for 1847, beg leave respectfully to report, that after the best consideration and most careful inspection of those exhibited, they award the following premiums:

For the best Ram, to Samuel Hambleton, Sr., the first premium.

For the second best Ram, to Daniel Lloyd, the second premium.

For the four best Ewes, to Gov. Samuel Stevens, the first premium.

For the four second best Ewes, to Gov. Samuel Stevens, the second premium.

For the four best Wethers, to Governor Samuel Stevens, the first premium.

For the four second best Wethers, to Gov. Saml. Stevens, the second premium.

The committee cannot forbear expressing their admiration of the sheep generally, exhibited for competition. They consider the exhibition in this department as doing great credit to the Shore, and affording great promise for the future. There were some few South Down and Cotswold sheep exhibited by Aaron Clement, of Pennsylvania, which, though not allowed by the rules of the associations to compete for premiums, were yet gladly welcomed by them, and commanded universal admiration. Your committee have the pleasure to announce, that the enterprising owner of these valuable sheep has disposed of some of them to the citizens of Talbot and Queen Anne's Counties, and that the flocks of these counties may now be improved thereby.

WM. H. DECOURCEY, THOS. A. EMORY,
JOHN N. HAMBLETON, H. C. TILGHMAN.

Report of the Committee on Swine.

The undersigned, Committee on Swine, would respectfully beg leave to make the following report, that owing to the large quantity of fine hogs exhibited, they found it exceedingly difficult to discriminate, not judging from size or condition, "but to that proportion between bone and meat which promised the greatest value from the least feed," and the age being also taken into consideration, we awarded the premiums as follows:

Best Boar, (a Chester) to Edward Paen.

Second best, (Irish grazier) Wm. P. Leaverton.

Best Sow, (English & Berkshire) Saml. H. Benny.

Second best, (Irish grazier) Wm. P. Leaverton.

Best Sow, with litter of pigs, (Berkshire and Dutch)

Rev. Thomas Bayne.

H. GOLDSBOROUGH, ROBERT ROSE,
THOS. TENANT, S. S. HOPKINS.
JOHN A. CLOUGH.

Report of the Committee on Agricultural Implements.

The Committee on Agricultural Implements respectfully report, that the time allotted for the discharge of their duties, was absolutely insufficient to do justice to the number, variety, and value, submitted to their inspection.

It may be truly said, that in this department at least, no previous show will bear a comparison with the present, and there were not a few, who regarded it unequalled by any, that has occurred in our extensive country. American ingenuity seems to be illimitable, and although a son of the Emerald Isle remarked, "you will never have such a collection again, to occupy your time,"—such is the progressive improvement manifested, we may fairly presume, that the machinery and implements of to-day, will be surpassed, or superseded by those of to-morrow. Everything essential to agriculture and rural affairs was present, and some required explanation from their inventors and manufacturers, to understand their object.

Of the plough, the first and most indispensable of all implements, there was a goodly collection. It has been beautifully said of it, "*The Plough is of no Party. It only divides, to produce more perfect reunion.*" How gratifying was the spectacle to those who can look back through the vista of time, and contemplate the old wooden mould-board, with its wrought share and coulter—a stone on the turning row to beat down the point, a frequent recourse to which was essential to cause it to enter—and when the sod was raised, the chances were about equal, whether it would tumble back, or tumble over. But now, the improved implement not only inverts the sod, but pulverizes it, and at a vastly less waste of horse-flesh. It would be vain to attempt an enumeration or description of the various and useful articles exhibited: the attention of the committee, however, was particularly directed to the implements designed to prepare food for stock. It has been justly remarked, that the horse will remain serviceable, so long as his teeth last—it must be obvious, therefore, that if the time and labor necessary for the purpose of grinding down his own food, before it passes into the stomach, can be saved, a great object will be accomplished. There were accordingly implements of various patterns, for crushing and grinding corn in the ear, and all of them valuable—the employment of any one of these on a farm, would save many bushels of corn, for market.

It has been ascertained thoroughly, that there is much aliment in the corn cob, which has been heretofore thrown away, because, animals could not appropriate it. Again it affords the stimulus of distension, which is absolutely necessary in the process of fattening, and will also diminish the amount of fodder, or, hay usually allowed to the farm horse. Indeed, it may be a question, whether the quantity of rack food ordinarily given to plough horses, or, mules in the day time, might not be dispensed with, provided, the allowance of corn were crushed and ground, with the superaddition of cob.

There was a machine for cutting and splitting up into minute parts, the entire stalk of corn, with all its appendages, which received much consideration, and is doubtless highly valuable, but the fodder cutter and grinder especially attracted the attention of the Committee, because, it was one of the enumerated articles for premium. The improved implement, known as Royer's patent, seems to have accomplished the desideratum, completely. The saccharine

principle resides chiefly near the bottom of the corn stalk, and this portion of the plant has, heretofore, been trampled under foot and rejected, but now, may be converted into the most nutritious food, by the aid of these valuable machines. This kind of plants in all its parts, therefore, is now available for the sustenance of animals, by means of those implements, which the inventive genius of our countrymen has produced.—But little mastication will be necessary for the animal, after a hard day's work, before he can resign himself to nature's grand restorative, sleep—for by man's ingenuity he will have gained several hours for rest, which, otherwise, would have been essential for grinding down his food, to prepare it for deglutition and digestion. Those who have horse-powers may now dispense with that tedious and unhealthy work—blade pulling, for a few hours of a rainy day, will suffice to prepare what will serve for a long time as a substitute for rack food, and an ample amount of provender will be found on every farm, because, by this process, scarcely any will be wasted, or, lost. It may be well questioned, whether dental surgery has accomplished for the biped, so much, as our ingenious artisans have achieved for the quadruped.

The whole Eastern Shore of Maryland will pay a tribute to those distinguished manufacturers and venders of Agricultural Implements, Messrs. Sinclair & Co., Whitman, and Drury, for their efforts, and the expense they have incurred, in adorning our exhibition with such a splendid display. With the two former, we have heretofore been familiar, and know their worth; but the last named, has appeared in our midst for the first time, and although his collection was not so numerous, yet he deserves high commendation for the value of his implements, and the taste and skill of his arrangement. If Archimedes of old could exclaim, "give me a place to stand on, and I will move the world"—Drury might say, with more truth and propriety, give me a sufficient number of horses to attach to my strong horse-power, and I will propel all this machinery, at one and the same time.

Of horse-powers, so indispensable to the operations of the farmer, there was an admirable display. With Sinclair & Co's we have been familiar, and know its value. Whitman's railway power is a beautiful piece of mechanism, and may be put down any where, and be ready for work, without the skill and trouble essential to the adjustment of other powers. Have any injurious effects resulted to the horse, from the incessant strain on the back sinews, when working on all powers of this description? The committee have enjoyed no opportunities of forming an estimate. It is also true, that pulling at sweeps, and walking necessarily in a small circle, is severe work, and the animals are often sadly galled. In no situation is the superiority of the mule so strikingly demonstrated, as at the sweeps of a machine.—Mr. Whitman also exhibited a power, to be propelled in the usual way. This was new to the committee, but the arrangement of its parts, its compactness, and the facility with which it could be turned by hand, elicited much admiration—but fears were expressed by some, that the castings were too light to stand heavy surges. The principle of construction is undoubtedly good.

Many, many implements were exhibited, which it was not in the power of the committee to test for want of time, to some of which, premiums have been awarded; and it might justly be regarded as a miracle, if instances do not occur, where their judgments have proved fallible. It is human to err, and the

committee must, in conclusion, ask the indulgence of the two societies, and of all others interested in the exhibition—as they can declare with truth and candor, that their efforts have been directed solely to do justice to all, without fear, favor, or affection.

The following list of premiums have been awarded:

To E. Whitman, for the best two horse flushing plough, (Prouty & Mears) new pattern, No. 3½, \$5

To R. Sinclair & Co., for the best seed plough, (Ruggles, Nourse & Mason,) \$3

To E. Whitman, for the best gang plough, \$3

To E. Whitman, for the best cultivator, (expanding) \$3

No premium was awarded for the best subsoil plough, because the same pattern (Ruggles, Nourse & Mason's) was held by two persons.

To E. Whitman, for the best ox-yoke and bows, \$1

To Sinclair & Co. for the best wheat fan, (Grant's) having obtained the premium at the last Show, \$5

To E. Whitman, for the best fodder cutter and grinder, (Royer's improved implement,) \$3

To C. H. Drury, for the best horse-power, \$5

To C. H. Drury, for the best wheat thresher, \$4

To E. Whitman, for the best separator, \$3

To R. Sinclair & Co., for the best screen, for cleansing seed grain, \$3

To C. H. Drury, for the best horse-power grist mill, \$5

To R. Sinclair & Co., for the best corn sheller, (the Virginia,) \$3

To E. Whitman, for the best straw cutter, (Ruggles, Nourse & Mason's) \$2

To E. Whitman, for the best corn and cob crusher and grinder, (Pitt's) \$3

To Sinclair & Co. for the best drill harrow, \$3

To Obed Hussey, for the best reaping machine, \$5

To Sinclair & Co., for the best wheat drill, \$5

To T. T. Martin, for the best churn, \$1

To E. Whitman, for the best grain cradle, \$2

All which is respectfully submitted,

GEORGE DUDLEY,
THOMAS O. MARTIN,
JOSIAH CHAPLAIN,
EDWARD T. BOWDLE.

Report of the Committee on Domestic Manufactures.

The Committee on Domestic Manufactures beg leave to report, that on entering upon the duties assigned them, they found themselves encountered by perplexing difficulties and embarrassments. The large collection and the vast variety of the articles submitted to their examination, chiefly the productions of the skill and industry of our fair country women, rendered the task of selecting and awarding superiority of one or two articles extremely difficult. With the view of aiding them in the discharge of their duty, they endeavored to adopt a standard as far as practicable, by which in some degree to regulate their decision. They believe it to be proper, and to conform to the policy and purposes of the institutions, under whose organization they were acting, to combine utility in domestic employment with beauty and grace in the execution of the work. But even with this assistance, they were often perplexed in making their selection. The exhibition of Quilts, to which the attention of the committee was first directed, was surpassingly beautiful. Every variety of combination of which the subject was susceptible, and which the refined imagination and taste of the skilful operatives could create, was there exhibited.—Silk quilts as well as those of less pre-

tending materials, but not of less beauty, were placed in competition.

There were also a large number of Counterpanes, of exquisite style and finish. Many of them, indeed, might justly compare with the more experienced skill and appliances of the olden countries. But on this subject the committee confess, the difficulty of selection was not so perplexing as in the choice of quilts. There were also several beautiful hearth rugs.

The articles of hose, as well long yarn, as coarse yarn stockings, were of most excellent quality. There were also fine yarn ½ hose, which, although not within the range prescribed to the committee, they feel constrained to present to the favorable notice of the societies. There were also exhibited very beautiful thread stockings and thread gloves. These, with worked worsted and embroidered slippers, were pronounced to be very beautiful.—There were also several samples of home made soap, which were regarded as most excellent.

From the foregoing brief review of the evidences of skill and industry submitted to the examination of the committee, it may readily be perceived that the task of awarding premiums, and thus to express a preference, was sometimes perplexing, and at all times difficult. But they have endeavored faithfully to obey the requirement under which they acted, and after much investigation, have awarded the following premiums:

For the best Quilt, to Mrs. Hardeastle, of Caroline, \$3

Second best, Mrs. Mary E. Randall, of Talbot, \$2

Best Counterpane, Mrs. Clough, of Talbot, \$3

Second best, Mrs. Wm. B. Willis, of Talbot, \$2

Best Hearth Rug, Mrs. Littleton, of Dorset, \$4

Second best, Mrs. Wm. B. Willis, of Talbot, \$2

Best Long Yarn Hose, Mrs. Ennalls Martin, of Talbot, \$1

Best Coarse Yarn Hose, Mrs. Jas. K. Cook, of Queen Anne's \$1

Best Woolen Gloves, Levin Harris, (negro) of Talbot, \$1

Best Thread Gloves, Sarah, daughter of Rev. R. W. Goldsborough, of Caroline, \$1

Best Worked Worsted Slippers, Miss Devorix, of Dorset, \$1,50

Best Embroidered Slippers, Miss E. N. Nicols, of Talbot, \$1,50

Best home made Soap, Mrs. Hollyday, of Talbot, \$3

In conclusion, the committee take leave to say, that although they did not pause to discuss the constitutional question of encouragement and protection to domestic manufactures, yet they feel safe in assuming that no man of any creed could be found, who would willingly withhold the meed of praise from those ladies, who have done honor to themselves and to the societies by the beautiful contributions they have furnished.

All of which is respectfully submitted.

T. R. LOCKERMAN,

CHARLES LOWNDS,

J. W. CHEEKUM,

THOMAS AULD,

THOMAS BURCHENAL.

Report of the Committee on Bread and Butter.

We, the undersigned Committee, appointed to award premiums to the best parcels of Bread and Butter presented for their judgment, have discharged the duties imposed upon them, to the best of their

ability, and beg leave to make the following report:

Best sample Light Bread, Mrs. Wm. H. Tilghman,	\$2
Second best do., Mrs. N. Goldsborough,	\$1
Best sample Corn Bread, Mrs. Susan Dawson,	\$2
Second best do., Mrs. Edith Dawson,	\$1
Best sample Fresh Butter, Dr. S. M. Jenkins,	\$4
Second best do., Mrs. A. M. Chamberlaine,	\$3
Third best do., Mrs. J. K. Cook,	\$2
Best sample Potted Butter, Mrs. M. Rogers,	\$4
Second best do., Mrs. Morris O. Colston,	\$3
Third best do., Miss Lydia Hambleton,	\$2

JAS. LLOYD MARTIN,
G. R. GOLDSBOROUGH,
RICHARD O. CUTTS,
T. S. HAYWARD.

Report of the Committee on Ploughing.

The undersigned Committee take leave to report, that the duty assigned them has been performed with all the discretion and judgment they could muster on the occasion. Where there is so much to be done in so short a space of time, and particularly when it was so well done, considerable difficulty necessarily occurred to distinguish between the merits of the contending parties—but they have decided with all candor, that

Mr. Martin Goldsborough is entitled to the first premium, for plough No. 4—Ploughman, Harrison.

The second premium, to Jas. N. Goldsborough, for plough No. 6—Ploughman, Henry.

The third premium to John W. Martin, for plough No. 1—Ploughman, John.

They have recommended to the notice of the Discretionary Committee, the following:

To their first consideration, Mr. Sinclair's plough, No. 1—Ploughman, Esau.

To their second consideration, Mr. Drury's plough, No. 2—Ploughman, Garretton.

All which is respectfully submitted,

SAMUEL H. BENNY,
R. H. GANMON,
BENJAMIN KIRBY,
JONA. BARTLETT,
JOHN BAYNARD.

Report of the Committee on Field Crops.

The Committee on Field Crops, have had under consideration the several specimens and qualities of the articles submitted to them, and after the most accurate calculations and observations of them, which they have been able to make, beg leave to report as follows:

For the best acre of Wheat, the committee award the first premium to Martin Goldsborough, Esq. 41 bushels to the acre,

For the best five acres of Corn, first premium to Martin Goldsborough, Esq. 63 bushels per acre, \$10

For the best $\frac{1}{4}$ acre of Irish Potatoes the committee have awarded the first premium to Thomas C. Nicols, Esq.; Crop, 76 3-8 bushels per $\frac{1}{4}$ acre, \$4

Second best, $\frac{1}{4}$ acre do., to John B. Thomas, Esq. of Queen Anne's crop, 76 $\frac{1}{2}$ bushels, \$2

For the best $\frac{1}{4}$ acre of Turnips, the committee have awarded the premium to Jas. N. Goldsborough, Esq.; crop 226,875 bushels, \$4

For the best $\frac{1}{4}$ acre of beets, the committee award the first premium to Henry Hollyday, Esq.; crop, 60 half barrels, \$4

WM. HARDCASTLE,
JAMES H. WILLSON,
WM. H. FAIRBANKS.

Report of the Committee on Vegetables.

The Judges originally appointed on Vegetables not being on the ground, the undersigned were selected to act in their places. We now have pleasure in awarding the following premiums:

To Mrs. E. T. Goldsborough, for the best sample of Celery, a premium of \$1

To Mrs. A. M. Chamberlaine, for the best sample of Cabbage, a premium of \$1

To John W. Martin, for the best sample of Carrots, a premium of \$1

To Mrs. A. M. Chamberlaine, for the best sample of Parsnips, a premium of \$1

To Mrs. A. M. Chamberlaine, for the best sample of table Beets, a premium of \$1

To John W. Martin, for the best sample of a Pumpkin, a premium of \$1

To Gen. Tench Tilghman, for the best sample of Squashes, a premium of \$1

To Dr. John A. Clough, for the best sample of Irish potatoes, a premium of \$1

To Wm. C. Skinner, for the best sample of Sweet potatoes, a premium of \$1

We were sorry not to find a sample of onions, and hope the next Show and Fair will not find them out of place.

We cannot close our report without expressing our great pleasure and satisfaction at the large and beautiful display of vegetables; so fine and full, that had there been a premium for second and third samples, we could in most instances have made an award. Were we permitted to know the names of all the ladies and gentlemen who contributed to this noble Show, we would take pleasure in making them known, as in our judgment, all deserve praise.—Therefore we take leave to say, to the ladies and gentlemen of the county, go on in your good work, for what adds to the health and comfort of all, must be good.

JAS. TILGHMAN,
M. W. TILGHMAN,
JAS. ARRINGDALE,
ORSON GORE.

Report of the Committee on Poultry.

The undersigned, Committee upon Poultry, after the most careful and diligent examination of the extensive and beautiful assortment offered, beg leave to make the following report:

Best pair of Turkeys, Mrs. Howes Goldsborough, \$2

Best pair of Geese, Mrs. Jas. N. Goldsborough, \$2

Best pair of Miscovy Ducks, Miss Lydia Hambleton, \$1

Best pair of Fowls, Jos. R. Price, \$1

Best pair of Capons, Jas. N. Goldsborough, \$1

Best pair of Puddle Ducks, Wm. Loveday, \$1

The committee would beg leave to remark that they have, upon no former occasion, witnessed so fine a display of poultry. The Bucks county hen, exhibited by Mr. Price, is a large and beautiful bird, and we have no hesitation in expressing it as our opinion, that she possesses remarkable points of good breeding. We next pass to the other sex of this excellent breed of fowls, and we offer no better evidence of our high opinion of him, than the award of the first premium.

The committee would further state, that they have examined a specimen of poultry exhibited by Aaron Clement, of Philadelphia, known as the Buck's county and Jersey Blues, and are of the opinion, that they are decidedly superior to all other breeds of that species of fowls they have ever seen; and would therefore, recommend them to those desirous of im-

proving their stock of poultry,—and the committee regret, that in consequence of the rules and regulations of the Cattle Show, they are not permitted in this case to award a premium.

All of which is respectfully submitted,
A. M. GOLDSBOROUGH,
SAMUEL MACKAY,
ALEXANDER MACKAY,
JOHN BRADSHAW,
CHARLES GOLDSBOROUGH.

Report of the Committee on Discretionary Premiums.

The Committee on Discretionary premiums, at the Easton Cattle Show and Fair, for 1847, now for the first time appointed at an agricultural exhibition, have found their duty and pleasure to consist, for the most part, in awarding premiums for articles offered by, and the handiwork of, individuals of the fair sex. They have great satisfaction in stating, that most of the articles submitted for their inspection by females, and many of them are the work of quite young girls, exhibit uncommon skill in their execution, and taste in design. The committee have selected the following, as in their judgment "particularly worthy of notice and encouragement," and they take leave to award premiums, therefore, as follows:

To Col. Nicholas Goldsborough, for 2 seed boxes, a premium of	\$2
To Charles Fleming, for 12 butter prints, cut in wood with a knife,	\$1
To Miss Lydia Hambleton, for uncommonly large sized potatoes, raised from seed balls,	\$1
To Mrs. Ann E. Goldsborough, for a jar of preserved peaches,	\$1
To the Misses Antoinette, Euphemia, Adelaide and Estelle Goldsborough, for ottoman covers, worsted work, each a premium of	\$1
To Miss S. E. Goldsborough, for lace	\$1
To Mrs. A. E. Goldsborough, for 8 linen towels	\$2
To Mrs. Joseph K. Cook, for 4 samples of apple jelly, from different apples,	\$2
To Benjamin Cusham, for an improvement on log armage, for saw mills	\$2
To Mrs. Wm. Bullitt Hayward, for a bottle of cider vinegar,	\$1
To Mrs. William Bullitt Hayward, for a chair cover,	\$1
To Miss Euphemia Goldsborough, for a piece of Chinese Soap,	\$1
To Mrs. James N. Goldsborough, for a caponed turkey,	\$1
To Miss Harriet Tilghman, for a knit woolen shawl,	\$1
To Miss N. Jones, aged 4 years, for a worked worsted kettle holder,	\$1
To Mrs. M. T. Goldsborough, for preserved quinces	\$1
To Mrs. William B. Willis, for starch,	\$1
To Miss Charlotte Plater, for an embroidered shawl,	\$1
To Mrs. Wm. M. Harcastle, for 3 pieces of table linen,	\$2
To Mrs. Wm. M. Harcastle, for a worsted mat, two bread bags, and a worsted cap,	\$1
To Miss Tilghman, of Hope, for an open work cotton barrete, hat, and a worsted cap,	\$1
To Miss Julianna Maynard, for a piece of lincsey	\$2
To Miss M. S. Sullivan, for a linen table cloth	\$1
To Mrs. William C. Skinner, for a piece of carpeting,	\$2
To Miss M. H. Willis, for a piece of fine flannel	\$2
To Mrs. Wm. C. Skinner, for a piece of coarse flannel,	\$1

To Miss R. May Stevens, for a linen table cloth \$1
The committee also had before them, presented by Mrs. Nicholas Goldsborough, a fancy cake napkin, of open work, which they deem worthy of notice for its elegance of execution, and taste in design.

All of which is submitted by

EDWARD TILGHMAN,
THOMAS C. BROWNE,
T. R. HOLLYDAY,
S. T. RUSSELL.

Their attention having been called to them, the committee have examined, and remarked with satisfaction, the very convenient and safely arranged set of coops, for the poultry exhibited, erected by M. T. Goldsborough, and they desire to speak in commendation of the same.

E. T., T. C. B., T. R. H., S. T. R.

PROCEEDINGS OF THE ST. MARY'S COUNTY AGRICULTURAL SOCIETY.

At the general meeting of the Agricultural Society of St. Mary's county, held at the Court House, in Leonard Town, on Wednesday, the 10th of November, present B. I. HEARD, *President*, JOHN H. SOTHORON, *Vice President*. The following proceedings were had:

On motion, the President appointed a committee of five—consisting of H. G. S. Key, Henry J. Carroll, Col. John H. Sotheron, Dr. James Waring and R. N. Milburn, to nominate officers and directors of the Society for the ensuing year. The committee having retired for a short time, reported the following gentlemen as officers and directors:

President, H. G. S. Key.

Vice Presidents—1st district, Dr. John M. Broome; 2d, Henry J. Carroll; 3d, Dr. William I. Edelen; 4th, Dr. James Waring; 5th Albert Young.

BOARD OF MANAGERS.

1st *E. District*—Rev. Joseph Carbery, Charles Medley, George E. Campbell, Dr. Randolph Jones, George H. Smith.

2d *E. District*—Col. William Coad, Lewis C. Combs, James C. Milburn, George Bean, Thomas Loker.

3d *E. District*—Dr. Walter H. Briscoe, Col. Jas. T. Blackstone, Benjamin G. Harris, Henry Jones, George Combs.

4th *E. District*—Rev. Francis Harding, William Biscoe, Francis Neale, Edmund S. T. Maddox, Dr. Thomas Matthews.

5th *E. District*—Col. John H. Sotheron, Charles A. F. Shaw, Luke W. Hutchins, Wilson Turner, George Thomas.

Treasurer, Clement C. Spaulding.

Corresponding Secretary, George Combs.

Recording Secretary, E. L. Spaulding.

The following resolutions were then offered and unanimously adopted:

Resolved, That the following memorial to the Legislature of Maryland be signed by the President and Recording Secretary for and in behalf of the Agricultural Society of St. Mary's county, and that the same be forwarded by the Corresponding Secretary to the Legislature for their consideration—and that copies of the same be made by the Secretary and sent to each of the Vice Presidents in the county, to obtain subscribers thereto:

To the Honorable, the Legislature of Maryland.

GENTLEMEN:—The undersigned, citizens of St.

Mary's county, beg leave to represent to your honors, that, from all they have ascertained upon the subject from experience and inquiry, they are led to the opinion that the present mode of inspecting Plaster of Paris in the city of Baltimore, is inefficient, and does not accomplish the object which the Legislature had in view in passing the law under which it is to be inspected. We, therefore, pray that the law may be so altered, or amended as to require that Plaster of Paris be subject to the same analysis as Guano. This we believe to be as essential in the case of the one as the other, as we are very confident that much imposition has been practised upon the farmers and planters by inferior or adulterated Plaster, in a ground state, passing inspection and being sold to them for a good article. Having no mills to grind Plaster, we are compelled to buy it in a ground state. As Guano is now analyzed, and we earnestly believe that Plaster should be also, we suggest that the inspection of these two articles be blended and put under the charge of the same inspector. This we consider very important to the agriculturists of this part of the State, as they buy largely of these two articles.

We will ever pray, &c.

Resolved, That the Constitution be so amended that there shall be three general meetings of the Society, one on the first Tuesday in March Court, one on the first Tuesday in August, and the third on the second Wednesday in November.

Resolved, That the thanks of this society are due to and hereby tendered to the President and other officers of this society, for the able manner in which they have discharged their several duties.

B. I. HEARD, President.

HENRY A. FORD, Rec. Secretary.

DR. MUSE—ON THE CULTIVATION OF CORN.

We find in the Fredericksburg (Va.) Herald, the following letter from Dr. Muse, of this State, to LAYTON Y. ATKINS, Esq., of Fredericksburg, which we transfer to our columns as a more permanent deposit for future reference. Mr. Atkins in a note to the Editor, accompanying the Dr's. letter, remarks:—"Some of the farmers on the Eastern Shore, Maryland, purchased ashes from the Soap Factory in Fredericksburg at 7 cents per bushel, and pay three or four cents per bushel freight. The county of Stafford has millions of bushels of blue marl, (a more valuable article) and poor land in abundance in immediate contact with it, and as yet, but few farmers can be induced to use it, even when the cost would be nothing more than the labor of taking it out and scattering it."

Cambridge, E. S. Maryland, August 29, 1847.

DEAR SIR:—Your favor of the 10th came duly to hand, and I reply to its inquiries with pleasure.

My experiments made in the culture of Indian corn since my Report to which you allude, published in the "Farmers' Register," in 1838, have led to some variations, tho' in a few points only, from that there stated.

You ask, "what was the condition of the land from which the crops reported were taken when I commenced improving it?" "And what kind of manures, and what quantities per acre, have been used by me?"

I purchased the Farm of the heirs of an old Englishman, who had bestowed more attention and taste-

ful improvements, upon the mansion, and other houses, and a few acres around them, than upon the fields—these were extremely poor, and would not at that time, I think, produce more than four bushels of wheat the acre—and to save you the trouble of a reference to my paper on the subject, and to which you allude, I will quote from it the following paragraph of the condition of the land, with its geological and topographical character:—

"The Farm with few exceptions, is a level upland, and by the measurement of our State topographical Engineer, is 20 feet above midtide of the Great Choptank river, near which it lies; tho' poor and unproductive when I purchased it some years ago, yet it has a well constituted soil as to "silica," and "alumina," the latter rather preponderating—and the former, chiefly coarse, but remarkably deficient of calcareous materials—with which, and nutritive manures I have largely supplied it; and it is well repaying the cost and labor."

I have often tried Gypsum on these lands without any effect;—the mineral bases, which they require, are lime and ashes;—with these, I have never been disappointed—they tell and permanently, where, and when applied.

You ask, what quantity, as well as kinds, of manure I have used per acre? I apply from thirty to a hundred bushels of lime per acre at a dressing—giving the largest dose to the strongest land—and I do not consider it necessary to repeat this for many years—but the minimum quantity named for these lands, I repeat, as they become improved. Of ashes, I hold, that fifty to a hundred bushels is an ample abundance. Though these mineral manures are essential to the perfect maturity of the whole class of the "cerealina," yet, the quantity they consume is very inconsiderable; though some much more than others: Oats, for instance, will consume much more—ten, or twelve times more of potash, than wheat, and will necessarily draw heavily upon that base, and rapidly exhaust it, and impair the capacity of the land for the latter grain, unless it be often replaced. The tendency, too, of these bases to sink, by their specific gravity, is another source of their exhaustion—in either case, a crop of Indian corn may probably be adopted advantageously to recover the buried mineral as well as other manures, by its deep-descending roots, loaded with sponges in quest of nutriment more than two feet below the surface, which the superficial fibrous rooted oats and wheat could not embrace and appropriate.

Of putrescent manures, I have used every variety—animal and vegetable—which I could command. It is needless to say that all animal manures are preferable to any vegetable—as they contain more "nitrogen," the essential component of all nutritive manures—and so, too, it is quite reasonable to prefer such of the vegetable class as approximate in this respect to the animal, or contain largely this essential material, without which the extensive family of the *Cerealina* cannot possibly supply a rich, nutritious food. I must add, that the few acres which produced my largest crop of corn that you allude to, were heavily manured with putrescent cotton seed—of which I had for two years grown respectable crops of about ten acres—rare crop, you will say, for Maryland—which, finally, after a third year's trial of sixty-acres, with great loss, I was compelled to abandon—no doubt from a general unfitness of climate.

In regard to manures, I will frankly say—though it be quite vulgar, and unfashionable—with all due respect to the inventors, and inventions, of modern

nostrums—Electricity—Guano—Hauterive solution, and others—they are either too costly, or inapplicable, for a large cultivation—though the force of some of them, I admit—and that my chief reliance for manures is “compost,” made of every organic putrescible substance, animal and vegetable, which may be obtained; and to be intimately incorporated with the mineral bases—lime and ashes; I mean lime well carbonated previously; as quick lime would dissipate the ammoniacal products of your compost, and render it comparatively worthless; and the more effectually, to guard against this loss, my compost heap is occasionally sprinkled, by means of a garden watering pot, with a saturated solution of sulphate of iron, which, better than the boasted gypsum, will fix the ammoniacal products, and prevent their escape.

Though this long—rapid—and devious race upon one of my favorite hobbies, may have drawn heavily on your patience, I must proceed a little further, to meet the scope of your inquiries.

The points in which I have, for the last several years, found it better to make the variations from my previous practice, stated in my report, are but few, set: in place of twelve inches, as there named, I have planted my corn twenty-four inches, in the drill line, and leave two stalks in place of one, as then practised: thus, I have nearly the same number of stalks—about nine thousand to the acre—and by this arrangement, the plants have a more equal distribution of air, and direct solar light, essential for the elaborating of the sap.

For the “scarifier” named in the report, I have substituted the “sub-soil plough”—and I omit the plough there named for June—which, by the by, I had adopted with a view to the subsequent crop of wheat; but, I am well convinced, it is an injury to the corn, to cut the roots, at that period, or when they have branched and covered much of the space around the plant; and therefore the “cultivator” only, is continued, from an early stage of the corn’s growth; at, and before which time, I use the plough, and the sub-soil cultivation; in this way, I have a deep tilth at first; and then, throughout the remainder of the growth, and culture, the surface only is kept light and open, for the access of atmospheric air and moisture freely, to the roots.

The sub-soil plough I find very useful, in my firmest clay soils; with the aid of a common furrow turned about five inches, and followed by the sub-soiling about seven inches, unturned necessarily, the roots of the Indian corn are assisted in their peculiar tendency to run deep into the earth, with ease and vigor—and really, in a great degree, to supply the purpose of “legumes” in a rotation—that is, to draw up the sunken manures, and at the same time, to render the sub soil more light and open.

You will have seen, that I never cross-plough—having offered, in my paper that you allude to, the *rationalia* for this, and other peculiarities—perhaps in my practice, I need not here repeat them.

You ask permission to publish my reply—I have no objection whatever. Respectfully,

JOSEPH E. MUSE.

SEEDING TO GRASS IN AUGUST.

A new practice has obtained among some farmers in this section, derived first from Mr. Buckminster, of the Massachusetts Plowman, of seeding down to grass upon the green sward furrow, in the latter part of August or first of September. When a piece of land becomes “bound out,” as the phrase is, or ceases to yield a good swath, it is very carefully and nicely

turned over by the plow at this season, and rolled down. Fifteen to twenty loads of fine compost are then spread to the acre and harrowed; first lengthwise the furrow, and then diagonally. The grass seed is then sown and covered with a brush harrow. The new seeding will be fit for the scythe the next season, although a little later than the old fields.

Among the advantages advocated for this practice are the following:—

1st. In those localities where hay commands a high price, the land may be kept highly productive in grass with less manure, than by the system of plowing and planting one or two years, and then seeding with a grain crop.

2nd. It is generally considered that the enriching or vegetable matter in an acre of green sward that will cut three-fourths of a ton of hay, is equal to a dressing of at least fifteen loads of manure. This is turned under, where it is free from the dissipating influence of the sun and wind, and there remains to enrich the land.

3rd. It is well known to the farmer that, by the old practice of planting one or two years and seeding with grain, before he can get round to renovate all the lots, as fast as needed, much of his land in grass will not yield a full crop. By this method, requiring as it does less manure, he can visit his different fields oftener with the plow and manure cart, and thus keep his entire tillage ground in a more productive state.

4th. Almost every farm has some fields in grass too low or wet to be plowed and planted in the spring. These lands can generally be plowed in August, and thus as often as they become bound or overrun with wild grasses, can be turned smoothly over, manured and re-seeded, and a good quality of hay continually obtained. Of course, land to be managed in this way, must be so free from rocks and stumps that the plow can turn it well.

I have thus given the practice and its recommendations, and although they will not apply in full extent, except in the localities named, still this practice in part, would be useful on most farms, in this region at least. F. HOLBROOK.

[We copy the above from the Albany Cultivator—could some of our experienced correspondents give us their views upon the subject?—Ed. American Farmer.]

AMERICAN FARMER,

AND

Spirit of the Agricultural Journals of the day,

Published in the City of Baltimore, is the oldest Agricultural Journal in the U. States—being in the 29th year of its existence. It is devoted exclusively to agriculture, and its kindred sciences,—embracing within its range, every thing connected with the business and pursuits of the Farmer, the Planter, the Horticulturist, the Florist, the Nurseryman, the Shepherd, and the Breeder of live Stock;—and is peculiarly intended for the meridian of the Middle, Southern, South-western, and Western States.

The “American Farmer” is published on the 1st of every month, in a large octavo form, each No. containing 32 pages, with an index and title page at the end of the year—making a volume of about 400 pages. Numerous engravings of the most improved agricultural implements, horses, cattle, sheep, &c., and occasionally plans of rural architecture, are given from time to time.

TERMS.—\$1 per annum; 6 copies for \$5—12 copies for \$10, payable in advance. The volume commences in July of each year, and ends in June. Specimen numbers will be forwarded when requested. Address SAMUEL SANDS,

Publisher A. Farmer, 2 Jarvis’ Building, North-st. Balt.

(G) Books and Stationery of all kinds, as above.—Ed

THE AMERICAN FARMER.

BALTIMORE, JANUARY, 1848.

OFFICE REMOVED

To No. 2 Jarvis Building, NORTH STREET, near Baltimore-st.—3d door round the corner from the late location.

NEW YEAR'S PRESENT.

We present our Patrons with the present number an extra sheet, filled with most excellent matter, which we pray them to accept as a small testimonial of the regard which we entertain towards them personally, and of the deep interest which we feel in the great cause of Agriculture. By thus issuing it, we have been enabled to effect the double purpose of relieving our columns of a present pressure, and of laying before our subscribers a mass of most acceptable reading for the holidays—and in the hope that our motives may be appreciated, we reiterate our fervent wish, that the advent of the new year may bring with it stores of those blessings which lend to life its charms, and vouchsafe health, prosperity, and happiness to man.

The Report of the Committee on Agricultural Implements to the Societies of Talbot county, does no more than justice to the skill of our Baltimore mechanics, and also to their public spirit, in adding so materially to the interest of the Fair—we feel a conscious pride in hearing from various quarters of the high satisfaction evinced by the farmers of the peninsula, of that part of the exhibition. The expense and labor incurred by them, it may be easily imagined, was not light, and we have no doubt that the liberality of our friends on that shore will be fully testified towards them—more especially as it has been, and can be proved, that for variety, and value of implements, faithfulness of workmanship, and quality of materials, they are unsurpassed, if equalled, by the artisans of any other city in the union.

The communication from "Patuxent Planter," was intended for our last, but was received after our forms had been put to press—this we regretted, as his papers are always to us acceptable, confident as we are, that few are read with more interest by those for whom we cater.

The correspondence between Maj. Jones and a "Young Farmer," will be read with avidity. The Major is a plain, practical, common sense man, and is an evidence of what can be accomplished by industry and a discriminating mind—The farm on which he now resides, was purchased on a long credit, and without means to stock it; yet by his skill and perseverance, he was not only enabled to pay for the farm, within a limited period, but it has been

made one of the most productive in his gallant little State. With such men in their midst as Major Jones and Mr. Hambleton (an account of the Farming of the latter will be found in the Reports to the Talbot county Societies,) it is no wonder that their respective counties have pushed so far ahead of their neighbors—such men are public benefactors, and deserve the approbation of all good men.

The paper by Mr. Brown, on the subject of cutting Timber, will attract attention. The details of such experiments must be invaluable to farmers and others.

The card of the Hon. Charles B. Calvert, which will be found in another part of to-day's journal, is highly creditable to the liberal spirit which influences him, and manifests a most praiseworthy zeal in favor of an important branch of agriculture hitherto too much neglected in our country. To such men as Mr. Calvert, England owes the present improvement of her cattle, but even there, where wealth so abounds with those in the upper ranks of society, we do not recollect ever to have seen a proposition at once so patriotic and munificent. Esteemed as Mr. C. always has been for his public spirit and hospitality, this act cannot fail to still more endear him to his friends and acquaintances, as the motive which prompted it must sanctify it in the opinion of all good men, and weave for its author the chaplet which is due to a benefactor.

The communication of Z. on the Potato Rot is from a highly intelligent Farmer of Carroll County, a gentleman who to great zeal in the cause of husbandry, possesses a most happily constructed mind—one eminently gifted with those powers of observation and discernment, which qualify him to judge between cause and effect.

We have on file several Reports to the Agricultural Societies in Montgomery county. The pressure upon our pages is very great, as is evinced in the issue of an additional sheet this month—but we hope to be enabled ere long to make room for those alluded to, as in addition to their claims upon our columns, from their intrinsic merit, there is also an obligation resting upon us, from the consideration of the numerous readers to our journal in that county.

OXFORD POINT.—In a casual remark, about this place, in our notice of the Talbot Fair, we are made to say, that the amount of shipping from it during the revolution, was greater than that now possessed by Baltimore—it should have read "then."

The letter of professor Liebig on the principles of Artificial manures, will find ready readers.

"A LEARNER" in our next.

HAY PRESSING MACHINES.—We are requested to ask the favor of some of our friends at the North, to furnish us with a description of the best machine for pressing hay in use—also the price. If our friends of the Albany Cultivator, or New Genesee Farmer, could furnish us with the desired information, they would place us under obligations.

"*Mary Seaton*" and "*Red Lady*," two of the Devon heifers for which Col. Capron received premiums at the Prince George's Fair, were subsequently purchased by Mr. S. Smith, of Raleigh, N. C.—Mr. S. also procured a fine bull of the same breed, from Jno. Glenn, Esq., of this city. This bull is from the very best milking stock of this State, and we have no doubt he will render good service in the improvement of the breed of cattle in his new home.

The zeal manifested in other counties in the formation of Societies for the promotion of Agriculture, has awakened our friends in Washington county to the importance of the subject.—The Torch Light publishes the constitution recently adopted in Charles county, as a model one. We hope there will be found sufficient enterprise in that rich and intelligent county to carry out the project so warmly urged by our friends of the Torch, and we flatter ourselves that we shall be enabled soon to record in our pages the proceedings of the meeting for the formation of the Society.

CORN CROP IN FREDERICK CO., Md.—A correspondent at Urbana informs us that the Corn crop of Frederick is short, and contains a much larger proportion of rotten and damaged grain than has been seen for many years.

WHEAT CROP.—From nearly every quarter we learn that the appearance of the growing Wheat is unusually fine.

FINE CARROTS.—We have been shewn some very fine specimens of Carrots, grown on Elkridge, at the country seat of Geo. M. Gill, Esq.


AGRICULTURAL LITERATURE.—It is gratifying to find the increasing taste for works on agricultural subjects, which is now so evident. Many of the readers and patrons of the "*Farmer*," are those who have no immediate connection with agriculture, but are engaged in other pursuits, yet have a hope that at some future day, it may be their lot, to be classed among the tillers of the soil. The following, from a gentleman in a Western city, no doubt, is one of this latter class:

"Although I am a book-keeper in a Banking house in this city, and have more to do with dollars than potatoes, or with interest than with manures;

yet I feel great pleasure in perusing the pages of your excellent "*Farmer*," and am always pleased when the opening of each month brings it to my desk."

ST. MARY'S (Md.) AGRICULTURAL SOCIETY.—It will be seen by the proceedings in another page, that this society has elected its officers for the ensuing year; and from the well known zeal and devotion of Mr. Key, the President, and his assistants, we augur a prosperous career to the Association. We flatter ourselves with the hope, that we may be spared to visit them on the occasion of their first annual exhibition, to report progress, in this time honored county, of the success of agricultural improvement.

The memorial to the Legislature, prepared by the Society, should attract attention in other sections of the State. Should the views of the memorialists be in consonance with the experience and wishes of those interested elsewhere, a copy of the memorial should be forthwith prepared and presented for signature, in order that the subject may be brought at an early day to the consideration of the Legislature—if left to the heel of the session, it will be sure to have the go-by, as it too often happens, that subjects peculiarly applicable to farmers, who comprise two-thirds of the population of the State, are thrown aside, to make room for others over which the legislature has properly no control.

 We have received from Col. Josiah W. Ware of Clarke county, Va., several specimens of *Wool* and *Yarn*, the product of his "*Cotswold Sheep*." In June last, we took occasion to notice a very fine young ram of his raising, which we viewed on its transit through this city, that had been purchased by the Hon. R. F. Simpson, a member of Congress from South Carolina—and we shall now perform the pleasing office of giving expression to our opinion of the wool and yarn before us, with the double view of bringing the excellence of this breed of sheep before our readers, and of doing justice to the enterprise of Col. Ware, who, in our opinion, deserves much praise for his public spirit, in introducing a breed so well adapted to the purposes of the farmer and grazier into his section of Virginia, as in our estimation, he who exerts himself to improve, or to introduce any of the domestic animals which may have been improved, should be looked upon as a benefactor of his kind, as such exertions tend to increase the means of human subsistence and to multiply those sources of human comfort upon which the happiness of man so materially depends.

The samples of *wool* sent us, as their labels import, are all taken from the *coarsest* parts of the fleeces of eight 12 months' old lambs, *eves* and *weathers*. The staple is about 12 inches long, and appear to us to be of that quality of wool of which *mousatine de laines*, and other worsted goods, are made. The *fibre* has the desirable qualities of equality, trueness,

and elasticity, and when we state, that the sample sent, which is of the coarsest parts of the fleeces, would bring, washed, in this market, 28 cts. per pound, the intelligent reader may form some estimate of the quality of the superior parts of the wool yielded by these sheep.

The samples of yarn sent us are beautifully spun, have a silky appearance and feel, and are of great strength.

Judging of the character of the wool of Col. Ware's sheep by the specimens before us, we are free to say, that it is admirably adapted for all the purposes of a farmer's household, whether required for clothing, blankets, or carpets.

We have thus far spoken of the fleece, and we shall now state a few facts which we believe may be relied upon with regard to their carcasses. Col. Ware has sold his sheep in lots of 30, of 12 months, and two years old, to Mr. Otterback, of Washington City, at \$10 a head, and when it is considered that Mr. Otterback is an experienced victualler, ranks high as a judge of good mutton, and bought them to slaughter, it is fair to concede, that these sheep possess superior excellence, or he would not have bought them at so high a mark. We learn that this lot had never been fed upon grain until they were being fattened for the butcher. That Mr. Otterback's judgment was not at fault as to the character of these sheep, is proved by the fact, that he was offered \$500 for the lot by another victualler, being an advance of \$200 upon the thirty sheep.

The sheep though called *Cotswold*, are, we learn, not thorough bred, but that Mr. Ware, by judicious crossing has greatly improved the original base of his superstructure, which was *Cotswold*. By this process, he has both improved the carcass and fleece. The original *Cotswold* sheep was highly prized in England, and held to be among the best fine long woolled. Their form, however, was not as beautiful as some others, though they ranked well as mutton sheep, but did not come to maturity as early as some other breeds. Within the last forty years, very general crossing took place in England between them and the *Bakewell* or *Leicesters*, which increased their propensity to fatten, improved their forms, and hastened their capacity for maturation. We are not apprised whether the original, of Col. Ware's present stock, were of the *genuine* or *improved* *Cotswold*, but judging of the admirable effect he has produced in his present stock, by his *own* crossing, we should say, that he has looked, and with success, to *fleece* and *carcass*, not omitting that other essential quality, *early maturity*.

THE POTATO ROT AND CROP.

We think it very evident that the Potato crop of 1847 has been lessened fully one-half in product by the Potato rot. All the accounts from the entire Potato regions of our country concur in the ravages effected by it—and the truth of these statements are

fully borne out, by the scarcity of the root, and the high price, compared with that of former years, in various markets. It is now several years since this disease made its appearance, and all the experience of the past tell us that the *cause* of the disease is as obscure and as much hidden from human ken as when its first destroying effects were presented to view. Essays upon essays have been written—discussion after discussion has been held, and still the cause lies as concealed from observation as have the frightful effects been made obvious. A hundred *nostrums* have been published, but none, so far as our reading and observation enable us to speak, have proved effectual in staying the onward course of the destroyer. After all, we believe, that *early planting*, in *dry soils*, comes nearest to any preventive means which we have yet seen suggested or practiced.

In view of the *certainty* of this disease, and of the consequent loss to the crop, we would suggest whether it would not be prudent for farmers and planters, in the future, to substitute, to some extent, *sugar beets*, *mangel wurzel*, *rutabaga*, *carrots* and *parsnips*, for potatoes. The experience of the past prove, that these crops are measurably safe ones; and we all know that they are well adapted either for the table or stock feeding, and that they each yield well. Such being the case, self-interest should influence all to adopt the measure we have recommended, and we throw it out thus early, in order that our patrons may make arrangements to carry it into effect the coming spring.

“J. S.” is welcome to our pages, and we hope one who proves himself so close an observer, will not fail to favor us with his contributions to the general stock of information, which we are delighted in being able, monthly, to present to our patrons, from writers so fully competent to instruct. The subject on which our correspondent treats, comes home to every grain-raiser, and cannot fail to be read with great interest. We should be glad to hear from “J. S.” on the subject he mentions—it is one not sufficiently attended to in many parts of our State and Country.

The paper from “R. S. W.” evinces a depth of thought and reasoning powers, which make the author an invaluable correspondent to our journal. The queries propounded in so respectful and interesting a manner, will commend themselves not only to “X.” another able correspondent, to whom they are especially addressed, but also to our readers generally.

DOMESTIC NOTICES.

We have received from the Publisher, C. M. Sutton, Broadway, N. Y., a recent work entitled “*History and description of the Horse, Mule, Cattle, Sheep, Swine, Poultry, and Farm Dogs.*” Its author is R. L. ALLEN, a gentleman long and familiarly known to the American public as an agricultural writer of great power, and most excellent judgment,—and e-

qually so as a distinguished breeder of cattle, swine, and poultry. The work before us is well gotten up, and in a brief and satisfactory manner, gives directions for the management, breeding, crossing, feeding and preparation for a profitable market of the various animals enumerated above, besides treating of the diseases to which they are liable, and prescribing the remedies for those several diseases. It also gives directions for the proper management of the *Dairy*. The book is illustrated by several fine cuts. After carefully perusing it we are free to recommend it to our readers as being worthy of their patronage, and from our general knowledge of the subjects discussed in it, we take pleasure in saying, that it is such a work as farmers want, and upon which they can safely rely. Without the tediousness of detail, each head is so treated as to convey everything which it may be requisite to know, and particularly is it so, with respect to those diseases to which animals are subject.

GUANO.—From a letter dated Spottsylvania Co., Va., we make the following extract:

"I have used 4 tons of Peruvian Guano on my wheat crop. That portion which was sown between the 1st and 15th of October, looks remarkably well. Some of my neighbors think that the wheat on some very poor land, manured with guano at the rate of three hundred pounds to the acre, is equal to any wheat on richly manured lots, sown at the same time. I do not think I have ever seen better on any land at this season of the year.—If it should turn out well, I may probably furnish you with the result."

ANALYSES OF LEACHED AND UNLEACHED ASHES, PER CENTUM OF POTASH, VIRTUES, &c.

A subscriber in Talbot asks us to inform him "What per centum of the "*Potassium*" of the shops is contained in leached ashes?—also, what other fertilizing quality they contain? How they are best applied, and in what quantity per acre?"

He also suggests that if we "had the analysis of ashes, and what per centum of Crude Potash they yield by lixivation, convenient, it would answer all purposes."

The first of our correspondent's questions is difficult to answer in any sense, and not at all practicable with anything like even an approximation to accuracy, as the great object of all soap-boilers, is, to extract, if possible, the entire principle of potash contained in the ashes which they submit to the process of lixivation, their success in making good soap, and the profits of their business, chiefly depending upon their ability to do so.

Again, different soap-boilers pursue different processes, and use different combinations of substances in the extraction of the ley. While some use wood ashes alone, others combine wood ashes, Barilla ashes, and Lime, or wood ashes, soda ash, Barilla and lime; but, as we have before premised, the object of all, is, to deprive the alkaline substances used of their

ley making principles. Again, without a resort to a series of accurately conducted analyses, it would be utterly impossible to tell what were the constituent elements of any particular parcel of leached ashes which a farmer might purchase from the soap-boilers, as the ashes which they cause to be gathered in the large cities, are made from every variety of wood, each of which have their own peculiar values—much more difficult is it to tell what a parcel of leached ashes may contain, when bought from the *Ashmen* who speculate in the spent ashes made at the factories of the regular soap-boilers. The substance which these speculators sell as *Leached Ashes*, is, as we have too much reason to know, a conglomerate mass, made up, artificially, like Pindar's razors, for sale, into which no inconsiderable portion of coal ashes find their way.

Our correspondent will perceive that we have treated his question as being put with respect to the per centum of *Potash* remaining in the leached ashes. We take that to be his meaning, as the "*Potassium*" of the shops is a very different article from *potash*. It forms its *metallic base*, in the proportion of 39.3, is spontaneously inflammable when mixed with water, and sells at the druggists at from 8 to 10 dollars an ounce, and has to be kept in some fluid substance, as *Naphtha*, to preserve it from deterioration. Its price would, of course, prevent its use as an improver of the soil.

With regard to the per centage of *Potash* extracted from wood, that is as variable as the wood or substance from which it may be made, as the following table will prove:

10,000 parts of Oak yields	15 parts of Potash,
do do Elm	39 do do
do do Beech	12 do do
do do Vine	55 do do
do do Poplar	7 do do
do do Thistle	53 do do
do do Fern	62 do do
do do Cow Thistle	196 do do
do do Wormwood	730 do do
do do Vetches	275 do do
do do Beans	200 do do
do do Fumetory	790 do do

The above is by Sir Humphrey Davy.

Spengel gives the following table, showing the constituent elements of the ashes of the *Red Beech*, the *Oak*, the *Scotch Fir*, and the *Pitch Pine*.

	Red Beech.	Oak.	Scotch Fir.	Pitch Pine
Silica,	5.52	26.95	6.59	7.50
Alumina,	2.33			
Oxide of Iron,	3.77	8.14	16.03	11.10
Oxide Manganese,	3.85			
Lime,	25.00	17.38	23.18	13.60
Magnesia,	5.00	1.44	5.02	4.35
Potash,	22.11	16.20	2.20	14.10
Soda,	3.32	6.73	2.22	20.75
Sulphuric Acid,	7.64	3.36	2.23	3.45
Phosphoric Acid,	5.62	1.92	2.75	0.90
Chlorine,	1.84	2.41	2.30	
Carbonic Acid,	14.00	15.47	36.48	17.50
	100.00	100.00	100.00	95.50

Having thus disposed of the question as to the percentage of *potash* found in *unleached* ashes, we shall next give the only analysis of *leached* ashes now within our reach. It is by *Berthier*:

Analysis of the insoluble matter left by the ash of six different species of wood:

	Oak.	Lime.	Birch.	Pitch pine.	Scotch fir.	Beech.
Silica,	3.8	2.0	5.5	73.0	4.6	5.8
Lime,	54.8	51.8	52.2	27.2	42.3	42.6
Magnesia,	0.6	2.2	3.0	8.7	10.5	7.0
Oxide of Iron,	0.1	0.5	0.5	22.3	0.1	1.5
Oxide of Manganese	0.6	3.5	5.5	0.4	4.5	4.5
Phosphoric acid,	0.8	2.8	4.3	1.8	1.0	5.7
Carbonic acid,	39.6	39.8	31.0	21.5	36.0	32.9
Carbon,					4.8	
	99.6	99.3	100.	100.	99.7	100.

These analyses show that we were right in our conjecture as to the abstraction of the entire body of the *potash* by the process of *leaching*. *Berthier's* was made simply with ashes, whereas the soap-boilers, combine lime with their ashes, which make their process still more certain as to the extraction of *all* the *potash*. It is, however, possible, that where ashes may be burnt by a very fervent heat, that portions of the *potash* may combine with the silica and form an insoluble silicate, in which case, a small residuum of *potash* remains in that form; but as the quantum would be minute, we will have to look to the constituent elements named above for the beneficial agency in the melioration of soils, which are known to follow applications of leached ashes, and that such benefits do flow, and ought to flow, we both know and believe. In most of the products of the field, we find each and all of the constituents found in leached ashes, and hence it follows as a natural inference, that they are essential to their growth and fructification.

It is worthy of remark, that the ashes leached by *Berthier* were *unmixed* with lime, and yet we find in their composition over 54 per cent. of *lime*. This large per centum of so important an agent of melioration, would at once stamp their value for agricultural purposes, if they had no other substance of virtue in them, as lime is known not only to be an amender of the soil, but either directly or indirectly to be an essential ingredient in the food of plants. It has been shown by every analysis, which has been accurately conducted, that lime enters into, and forms an integral part of, the constituent elements of all plants, which have ever been submitted to the tests of the Chemist. The analysis by *Sprengel* does not give so large a proportion of lime in the ashes of wood, as do that by *Berthier*; they each, however, show a *very large proportion*, and this quantitative difference may have been produced by circumstances connected with location and soil. Be the difference referrible to these, to the superior accuracy of the one analysis over the other, or to any other controlling circumstance, they both conclusively prove the important truth, that *lime* is an essential element to

all soils, and that the integrity of vegetable life, in a very important degree, is dependent upon its presence in the soil, and hence, that where the native supply may have been exhausted by continual cropping, that it should be resupplied by the agriculturist. Independently, however, of the lime found in leached ashes, the *Magnesia*, *Oxide of Iron*, *Oxide of Manganese*, *Phosphoric acid*, *Carbonic acid* and *Carbon*, found therein, are each and all material elements in the composition of all soils, as well as in that of the products of the earth, as have been sufficiently proven by every analysis of either the one or the other, which have been made upon scientific principles. Indeed, we apprehend that that fertility which conduces prolific production, and perfect fructification, cannot exist in any soil, where these and other substances may be absent.

In connection with this part of the subject we will mention that some few years since we applied to a large soap manufacturer to ascertain the relative quantity of wood ashes used in his ley steeps, and he gave us the following as the mixture used by him:

35 bushels of *Barilla* ashes,
45 bushels of *Wood* ashes,
30 bushels of *unslacked Lime*.

So that, independent of the large proportion of lime naturally found in wood ashes, every 110 bushels of his leached ashes contained 30 bushels of lime.

In respect to the mode of applying ashes, we would remark, that the best plan is to sow them broadcast over the land after it may have been seeded and harrowed, and that the ground should then be rolled.—They may be applied in compost, with mould or rotten manure, and plaster, in the hill, to cover corn at the time of planting, or at the time of the first working. *As to quantity per acre*—if the ground be full of vegetable matter, from 50 to 100 bushels of leached ashes per acre may be advantageously applied—upon thin soils one half that quantity is enough. Of *unleached* ashes, not more than half the quantity, in either case, should be applied. In making a *compost for corn*, we should take a cartload, say 25 bushels of mould, or rotten dung, 5 of leached, or 2½ of unleached, ashes, and 1 bushel of Plaster; mix the whole together, and give a handful of the mixture to each hill of corn.

As a *top-dressing for grass*, 6 bushels of unleached, or 12 of leached ashes, sown broadcast, is about the proper quantity. Such applications to meadows should always be followed by harrowing and rolling, and the best time, *early spring*, or *late fall*, just before the freezing of the ground.

THE LIVE AND DEAD WEIGHT OF CATTLE.

To farmers and planters this is a question of the very deepest moment. The following note has recalled the subject to our mind, and though we have often thought upon it, and promised to give it a proper investigation, something has always intervened to postpone it. But as the subject has been brought

thus freshly and directly to our consideration, we shall embrace the present moment to lay before our agricultural readers such facts connected with the subject as are now at our command, in the hope that its profound interest will induce some of our numerous correspondents to take it up, and follow it out to a practical conclusion.

The note of our correspondent is in these words:

"To the Editor of the American Farmer.

SIR:—I have long been thinking that the deduction made by victuallers between the live and the dead weight of the cattle which we farmers sell them is too heavy, and would, therefore, thank you to inform me and other farmers what would be a fair deduction, so that we may know whether we have been fairly dealt with or not, and secure ourself in the future against wrong. From the number of cattle sold by farmers and graziers annually, for the shambles, if the deduction made is only a very few pounds in the hundred too much, the aggregate loss to the agricultural interest would amount to many thousands of dollars; and as the raising of cattle for slaughter is, at best, but a poorly remunerating business, it is but just that those engaged in it should be paid for all they may be entitled to.

Your compliance with this request will confer a favor upon hundreds of cattle raisers, besides

Yours, VALLEY OF VIRGINIA."

The above note is deficient in one fact; its author should have told us the *per centum* of deduction made between the live and dead weight, in order that we might the more advisedly have entered into a series of calculations, but as he has omitted to do so, we shall have to content ourself with the task of arraying such facts as we have in our possession, to show the relative difference, which has been proved by experience to exist, as have been tested by actual experiments made both in England and in this country. It is by such means alone, that even an approximation to a fair average deduction can be arrived at; and, indeed, when the fact is properly considered, that the condition of the animal, whether fat, or otherwise, makes a material difference in the result, all averages must be looked to with suspicion as to their certainty, and must be regarded more as an arbitrary conclusion, than as any just and accurate measure of value. And we would, therefore, suggest to all cattle raisers, the propriety of instituting accurate investigations. This can be effected in this way: Where several living in the same neighborhood may have cattle intended for market, let them have one or two of various degrees of fatness weighed on the hoof; then killed; weigh the quarters, rough fat, hides, head, horns, hoofs, entrails and blood. The weight of the four quarters would give them the actual weight of marketable meat: by rendering the rough fat they would arrive at the weight of tallow: by weighing the hide, its weight and value could be determined. If it be the rule of the victuallers only to pay for the quantity of meat in the four quarters, by weighing the offal, as the rough fat, hide, head, horns, hoof, entrails and blood of some six or eight

cattle, and deducting that from the live weight of the several animals, something like a proper average might be arrived at. But we have yet to learn any just reason why the raisers of cattle should not be paid a just value for the hide and rough fat, as well as for the beef contained in the four quarters of the bullock.

Having premised thus much, we will give the examples to which we have before alluded, which we copy from Cuthbert W. Johnson's admirable "Farmers' Encyclopedia:"

Professor Johnson says—

"Salesmen commonly calculate that the dead weight is one-half of what the animal weighs when alive; but the butcher knows that the produce is greater: it often approaches to three-fifths; and by an extensive stock bailiff of the late Mr. Curwen, it was found that the dead weight amounted to fifty-five per cent. of the live. But the amount differs strangely, as may be seen by the following statement of Mr. Fergusson, of Woodhill:

	Live Wt.		Dead Wt.		Tallow.	
	Stone.	lbs.	St'e.	lbs.	St'e.	lbs.
An Aberdeenshire ox	132	11	84	6	16	6
A Short-horned ox	132	0	90	1	14	0
A Short-horned heifer	120	4	77	9	15	8
A Short-horned steer	120	5	66	7	14	13
	505	4	318	7	60	11"

This example gives us 63 per cent. and a fraction over of beef, besides 851 lbs. of tallow, to say nothing of the four hides.

"In New York only four quarters are made by the slaughterer, and the hide and tallow are not weighed or reckoned in the price: facts which are to be remembered in making comparisons of prices in the different markets."

"The following are some examples of live and dead weights of New England cattle, killed at home, and after having been driven from the Connecticut river to Brighton, the Boston beef market, a distance of 75 or 80 miles.

Example 1. One ox, live weight in market 2393 lbs.; quarters weighed 418 lbs., 415 lbs., 324 lbs., 331 lbs.; hide 150 lbs.; tallow 173 lbs.=1811 lbs. Difference 582 lbs.

This example gives us over 62 per cent. of clear beef, independent of the hide and tallow.

"Example 2. Two oxen of A. J., killed at home, weighed as follows:

Live.	Killed.
One 1979 lbs.	1400
" 1910 lbs.	1341
3889	2741

About 204 lbs. loss on a hundred of the live weight."

This example gives over 70 per cent.

"Example 3. An Ox owned by A. S., conveyed to Brighton on a sled, weighed at home about 2630 lbs.; the precise number of pounds not recollected. On being slaughtered, his weight was as follows: quarters 480 lbs., 479 lbs., 374 lbs., 383 lbs., hide 154 lbs., tallow 250 lbs. Total 2120 lbs. Loss 510 lbs."

This example gives over 65 per cent., independent of hide and tallow.

"Example 4. Ox belonging to R. D. when he left Connecticut river weighed 2435 lbs. Weight at Brighton, when dressed, 1588 lbs. Loss of weight 867 lbs." This is a little more than 65 per cent.

"Example 5. An Ox weighed on Connecticut river 2250 lbs.—weighed in market 1472 lbs.—Loss 788 lbs.

This example gives a fraction over 70 per cent.

"Example 6. An ox weighed as above 2255 lbs. weighed in market 1495 lbs. Loss 1051 lbs."

This example gives us a fraction over 65 per cent.

"Example 7. A fat bull of D. S., killed at home, weighed alive 1120 lbs.; dead 832 lbs. Loss 288."

This example gives upwards of 74 per cent.

"Example 8. A fat heifer of E. W., killed at home, weighed 1120 lbs.; dead 832 lbs. Loss, 288 lbs."

This example gives over 70 per cent.

"Example 9. An ox belonging to S. C. weighed on Connecticut river, alive, 2590 lbs.; at Brighton, dressed as follows: quarters, 394 lbs., 350 lbs., 362 lbs., 358 lbs. hide, 120 lbs.; tallow 207 lbs. Total 1791 lbs. Difference between live and dead weight, 799 lbs.

This example gives over 60 per cent, independent of hide and tallow.

"Example 10. An Ox belonging to S. C., weighed as above 2345 lbs., at Brighton dressed as follows: quarters 352 lbs., 310 lbs., 364 lbs. and 308 lbs.; hide 115; tallow 217 lbs. Total 1666 lbs. Difference between live and dead weight 679 lbs."

This example gives over 56 per cent., independent of hide and tallow.

Taking the average on the eleven examples of live and dead weights, as above enumerated, it gives us 65 5-11 lbs. as the per centum of beef which should be paid for, independent of hide and tallow,—and as it costs the agriculturist just as much to grow these latter as it does to grow the beef, we do not perceive any just reason why he should not receive payment for them as well as for the beef.

We have stated the above average, not with the view of advancing the opinion, that it is a just per centum of deduction, but only to bring the fact fairly before our agricultural friends. We are aware, as we have before premised, that the condition of a bullock influences very materially the per centum of marketable beef, which he may yield, when killed and dressed; but it does strike us that the deduction made by the New York dealers, of 50 per cent., is too high—entirely too high—and as we presume that the same rule of deduction may prevail in other markets, we think the subject worthy of the serious consideration of every man engaged in agricultural pursuits; for even those who may not have a direct interest in the raising of cattle, should feel sufficient *esprit du corps* to make common cause with those who are engaged in their raising.

We have no precise data at hand by which to make an accurate calculation, but we will endeavor to make an approximate one.

We have a population of 20 million of inhabitants,

and if we assume it as a fact that one-third of this number consume daily the third of a pound of beef, per capita, we have as the number of such consumers 6,666,666 individuals, by dividing this number of individuals by 3, we have as the quantity of beef consumed by them daily, 2,222,222 lbs., or yearly 811,111,030 lbs. Now, then, as our examples give 65 as the product of dead beef in every 100 of live, if the rule be to pay for only 50 lbs. in the hundred, the loss to the beef raisers, annually would appear to be 121,666,654 lbs., which at 3 cents per pound would amount to \$3,649,909 62 cents. Such an immense sum, operates most grievously upon the agricultural interests; it should awaken the most serious consideration, and lead to such a series of experiments as will furnish something like a fair average per centum of deduction. This apparent loss, is independent of all beef which may be exported and sold in foreign markets.

If this estimate of the consumption of beef should be considered too large, and we reduce it one-half, still the value of the quantity which the farmers and graziers are not paid for would amount to \$1,824,954 81 cents—a sum entirely too great to be permitted to be lost, without an effort being made to establish such a just measure as will ensure justice to both buyers and sellers—and we are free to confess, that such a measure would be equally agreeable to all parties.

The State of Massachusetts has a law regulating the sale of beef.

It declares that "all beef cattle, except bulls sold in market by weight, shall, when slaughtered, be prepared for weighing in the following manner:—The legs shall be taken off at the knee and gambrel joint; the skin shall be taken from all other parts of the animal; the head shall be taken off at the second joint of the neck; the entrails taken out, and all the fat of the same be taken off and weighed as rough tallow, and every other part of the animal, including the hide and rough tallow, (the udder of cows excepted,) shall be weighed.

"All beef shall be weighed upon the first weekday succeeding that on which it may be slaughtered."

From the examples we have given it is obvious that 50 per cent. deduction is too great; and from the universal dissatisfaction prevailing among the cattle breeders, it would seem that a change is necessary. How that change is to be brought about is for farmers and graziers to determine. To us, it appears but just and equitable that all the beef, as well as the hide and tallow, should be paid for, whenever an animal may be sold by weight, and with this remark we shall conclude our article.

THE MIMOSA TREE.

With the following note, from a lady subscriber to the "Farmer," we received the package of seed mentioned by the writer. In obedience to her request, we will, with pleasure, distribute them to such of our friends as may desire to engage in the culture of the tree. The laudable example of

Mrs. Thomas, should be followed by every one having seeds of beautiful and rare plants, as she justly observes, it is "an imperative duty to do all the good we can whilst we are on earth"—and we will with pleasure act as the medium through which such philanthropic views can be effected. We learn, in addition to the testimony of our fair correspondent, that it is one of the most beautiful trees to be found in our country. Mr. R. Burns, of this city, we understand, obtained some of the seed from this same tree, and has planted them in Green Mount Cemetery.

CHESTERTOWN, Dec. 14, 1847.

To the Editor of the American Farmer.

SIR:—I have taken the liberty to send you a quantity of Mimosa seed for distribution,—it is one of the handsomest shade trees I have met with as to foliage and flower; is not infested with vermin of any kind—the seed sent is gathered from a tree in my garden, fourteen years old next spring. There were three seeds brought from Havana, only one came up; I found considerable difficulty in acclimating it with all the care I could bestow on it; the tree is in good preservation and very ornamental.

The seed requires to be planted in the early part of March, in a light rich soil, to be placed in a bowl, and hot, though not boiling water, poured on it over night, to steep until morning, when all those seeds that are swollen I plant in rows two feet apart and one foot between each seed—keep them clear of weeds, by hand weeding, as the roots are near the surface and will not bear hoeing. The balance of the seed I pour hot water on the second night, those that swell I plant in the same manner. The tree with care will bloom in four years—the seed from my tree is now acclimated, and has flourished in Pennsylvania and New York very finely. Mr. Wm. Prince who had heard of my seed being acclimated, wrote for some, which I sent him; he informs me they are growing finely. The seed has been sent to Philadelphia, through nearly all the counties on this Shore, and some on the Western. In Delaware they thrive well. I had saved considerable seed either to send or take to the agricultural exhibition, at Easton, but was disappointed. Excuse me for troubling you on this business. I think it an imperative duty to do all the good we can whilst we are on earth.

Very Respectfully,
MARY S. THOMAS.

To the Editor of the American Farmer.

SOMERSET CO., PA., Dec. 1, 1847.

DEAR SIR:—Enclosed you will receive \$2, my subscription for the present and the next year's "Farmer." Be pleased to accept my warmest thanks for your continuance of my paper, notwithstanding my inability to comply with the terms "in advance." I hope, hereafter, to be able, as I am willing, always to do so. I was anxious to give you more solid proofs of the estimation in which I hold your instructive paper, (as likewise the head and heart that conducts it,) in the shape of some additional subscribers, but I have not as yet succeeded. You know where there is the most ignorance, there is generally the most prejudice and bigotry in preconceived notions; yet I still hope to see, even in these barren ridges of the Alleghany, some of the improvements which have been made elsewhere under more congenial circumstances. We are here about 45 miles by a

passable road from Cumberland and Hollidaysburg, consequently, the "high pressure system" is entirely out of our reach. Lime would cost at the least, 25 cents per bushel, delivered, which our distance from a cash market forbids us to use. If you could at some future time give the details of making charcoal, it might be applicable here. I think it might be pounded sufficiently fine to be used advantageously; and if you could devote only half a page of each number, for a little while, as a glossary to (agricultural) chemical terms or names, I think it would be much to the advantage of those, who, like myself, do not possess a chemical dictionary; but I only suggest this. I should be very sorry to dictate to so ably conducted a journal.

Yours, with sincere respect.

We shall comply with the requests contained in the above at our earliest leisure. In our 1st volume, of this series, for 1845-6, page 185, will be found a very good glossary of chemical terms used in agriculture, together with directions for analyzing soils.

If our advice would avail, we would say to our friend that if he can procure lime delivered on his farm for 25 cents per bushel, he should by all means embrace the opportunity to commence liming his arable land, as we are convinced that it would greatly increase its productive capacity, while it would also improve the quality of the products. Twenty-five bushels an acre will do to begin with.

ON TURNING IN CLOVER FOR WHEAT.— GUANO, CORN AND WHEAT.—DRILL HUSBANDRY, &c.

To the Editor of the American Farmer.

SIR:—I read in the last January number of the Farmer a communication from Major Jones, of Delaware, on the subject of plowing in a luxuriant crop of clover for wheat, with the plan of which I was much pleased. The result of the experiment has not been made known, at least in the American Farmer. I write this communication for the purpose of requesting Major Jones to furnish for publication the yield of wheat, and whether he considers the plan of plowing in clover a good one for the production of wheat.

I desire to make an experiment somewhat similar to his, next year, but am undetermined whether to pasture the land any or not. Did the Major pasture any of his?

I expect to apply about 200 lbs. Guano per acre to my field of 25 acres, not doubting, from the experience of the present year, that I shall be fully repaid.

If I should pasture any of my clover field, it would be done from a belief that the wheat crop would be benefited by it. It is an unsettled question, and the light which the Major may throw on the subject may go far towards determining it. At all events, I hope he will not hide his light under a bushel.

A YOUNG FARMER.

Harford county, Md., Nov. 15, 1847.

P. S. Will the Major also communicate the result of his experiment of the present season in plowing in Guano for corn, and also whether he is still pleased with the drill machine?

The above was received too late for our last No.: we forwarded it to Major Jones, however, and he

has, with his usual promptness, returned the following answer to the queries propounded:

To the Editor of the American Farmer.

SIR:—In compliance with the request of your correspondent, "*A Young Farmer*," I would state, that from the practice of many of the most successful farmers of Delaware, together with my own experience, I believe that young clover, upon land that had been previously limed, is the quickest, most permanent and economical mode of improving what is called our old worn-out lands, or of giving a body to lands more recently cleared.

The field referred to by your correspondent, was of the former class, and had not yielded over 16 bushels of wheat to the acre, previous to the past year. This field, as was stated on some former occasion, had received a dressing of about 40 bushels of lime to the acre in 1838, and previously to the last crop, had two light crops of clover turned under. In 1846 I turned under a heavier crop than I ever had done before, and sowed 88½ bushels of wheat with Pennock's Drill, on eighty acres, from which I gathered 1920 bushels, or about an average of twenty-four bushels to the acre. This I sold in August, for \$1.30 per bushel, amounting to thirty-one dollars and twenty cents per acre, which, according to the usual manner of renting land in this country, of one-half, pays a rent equal to the interest on two hundred and fifty dollars per annum. I mention this, in connection with the above, to show the intrinsic value of Eastern Shore land. A part of this field is south of Mason and Dixon's line—the value of which land has never been duly appreciated, considering the ease with which it can be renovated, together with the facilities of getting our produce to market, and of obtaining the fertilizing manures for the improvement of the land.

I keep no cattle or other stock running at large, other than horses enough to work the farm and a sufficient number of cows to keep the farm plentifully supplied with milk, cream, and butter. My entire stock of cattle now number seven of all ages—nor do I cut any clover, except a few tons for milk-giving cows in winter. In consequence of my keeping so few cattle, but few acres are required for their pasturage, for which purpose I have a small field of orchard grass and timothy of about fifteen acres, which, by occasional top dressing, affords good pasture, and constitutes my principal pasture land. I seldom let my stock run on any other field than the one designed for the next corn field. On no occasion ought stock be permitted to go on clover from the time it is sown until it is in blossom.

The surest way to obtain a good crop of clover for improving land, is to sow as early as the spring will allow, at the rate of one bushel of clear seed on five acres. Sow one bushel of plaster to the acre as soon as the clover is up, and top dress with any kind of manure, lime, or marl, as soon after harvest as possible—but be sure to put it on, if that should not be convenient till the last of April following. Keep off all stock, and let not a scythe be used either for hay or seed. Then plow deep in July, if possible, and turn the clover well under. If the clover be very heavy, put on either a larger plough or start a heavy harrow, to comb down the clover, a little ahead of the plough—then harrow with light harrows lengthwise with the ploughing, so as not to disturb the sod. The oftener you pass the harrow the better, as it packs the ground on the loose clover—then roll with a heavy roller. Your seed bed being now well pre-

pared, you may sow with Pennock's drill one bushel and one peck of seed to the acre. Some of the best farmers of this country, the Hon. E. F. Chambers, the pioneer of early sowing, amongst the number, think July the surest season for sowing wheat, he having practiced early sowing since 1837.

I sow all my grain with the drill—wheat, oats, Indian corn and broom corn, and if I should sow buckwheat, I should put that in with the drill also.

As an evidence of the superiority of the drill over broadcast sowing, Mr. J. C. Clark, the President of the New Castle county Agricultural Society, stated at one of our late regular meetings, that he gathered twice as much wheat last harvest from land drilled, with one bushel and a quarter to the acre, as he did from two bushels sown broadcast. Mr. Clark has since then purchased one of Pennock's drills. We have more than twenty of those drills now in New Castle county, besides which we have two others of English make, one of which was imported by Mr. Frank Laudon, the pioneer in drill husbandry in this country, about twenty years ago; the other was imported by Mr. Joseph Carr, a few months since, at a cost of near \$300, the duty of about seventy dollars included. These drills have a management box for the purpose of sowing the concentrated manures, poudrette, bone dust, and guano, &c., at the same time of sowing the wheat, and is so far superior to all others in common use.

I am sorry to say that I was not as particular in carrying out my experiment with the guano, as the importance of that newly introduced article would seem to require. The members of the Farmers' Club judged from the appearance of the corn after it was topped and bladed, that the difference in favor of the guano was 10 or 12 bushels to the acre. I find, however, that where I had limed most the corn was best. From the appearance of the corn in August last, I thought it justified me to make a farther expenditure for the wheat crop, and consequently I purchased 16 tons, at \$51 per ton, which I had intended to have sown on the sod, as I did for my corn; but as I did not get it in time, I then sowed 300 lbs. per acre with a machine on the fresh rough ploughed ground, which I harrowed well and drilled in one bushel and a quarter of Mediterranean wheat to the acre.

I am decidedly in favor of ploughing in the guano for all crops.

J. JONES.

Wheatland, Del., 3d December, 1847.

To the Editor of the American Farmer.

SIR:—Allow me to suggest a few questions to your correspondent "X.," who certainly maintains his ground with much ingenuity. I might premise, that I most sincerely hope his theory is true, and my convictions wrong; because, unless the means are discovered of ameliorating the condition of a large portion of our lands on this side of the Alleghenies, we may in vain hope to compete with our brethren in the valley of the Mississippi, in raising grain of any kind: and the sooner the truth is ascertained, the sooner might farmers turn their attention to other objects more profitably to themselves and to the public. I allude to articles of bulk, such as hay, or of commodities requiring a quick sale and immediate consumption, such as fresh fruit, vegetables, &c. The subject is really one of importance in a political and social point of view, because, if the agricultural population of Maryland, and the States south of her, can do no more than gain a bare subsistence, without the means or time of improving their minds and educat-

ing their children—some of them had better throw up the plough at once, and abandon a hopeless controversy with the wilderness. In that case let the West earn the honorable distinction of becoming the granary of the World, as England claims to be the workshop, (*officina gentium*) with the remarkable difference however, that the latter maintains her unenviable position by artificial institutions of society and a most oppressive financial system; whereas the latter is favored by nature with superior advantages. The productions of the one are sprinkled with tears of widows and orphans, those of the other blessed by the smiles of a happy and contented people.

If the amount of nitrogen contained in manures be no criterion of their effects, wherein lies the fallacy of the numerous experiments by Boussingault and others which seem to sustain an opposite doctrine?

Granting that the air contains within its limits carbonic acid to the utmost extent claimed for it, is this a reason for asserting that there can be and is no other source of carbon? On the same rule, must the discovery of oils in seeds by Dumas, be a bar to the argument of Liebig, that the fat of animals may also be produced from sugar and starch by deoxidation? If it admits of no doubt that the human family are capable of living on either an animal or vegetable diet exclusively, will this fact justify the opinion that they cannot digest both classes of aliment at the same time, with decided advantage to their mental and physical faculties?

Admitting, likewise, the force of the axiom now received as such by Geologists, and others, that no further cause should be expected or admitted beyond what is sufficient to produce a given effect; is there not a truth equally recognized that nature always devises several means to accomplish her grand operations, so as not to allow herself to be frustrated in her purposes of life more particularly?

Why should carbonic acid and ammonia, in connexion with mineral substances be presumed capable of forming every kind of organic constituent of vegetables, when it is ascertained that in the animal economy the different tissues and secretions are produced from analogous or identical ingredients of food?

Can an instance be pointed out, where a field whose surface composed of clay, magnesia or sand, either separately or in combination, without a particle of organic or inorganic matter present, has at once produced a good crop of grass, clover or grain solely by the addition of inorganic manures?

Do vines, bulbs, shrubs, &c., which are known to be capable of subsisting upon air and water, generate the most important vegetable substances, such as fibrin, albumen, or even starch or gum, so plentifully as do the same or higher orders of plants, attached to the soil under favorable circumstances—even if the water contain all necessary minerals in solution?

Might we expect the vegetable alkalies, quinia, morphia, and others, of this grade, to be generated with such limited means: may not the peculiar food of plants possess great influence in determining vegetable results? I do not refer to the number of elements concerned, so much as the manner in which they are combined.

If two quickly growing plants are furnished with the same adequate supply of mineral manures, but one of them with vegetable matter besides in a state of decomposition, why does the latter outstrip the former in growth and exceed it in quantity, supposing the vegetable matter to contain but a trace of the phosphates or anything else worth mentioning, save carbon and nitrogen?

It has lately been asserted, that a willow has grown astonishingly in earth deprived of mould by being previously baked in an oven; it may be literally and substantially true, yet must we conclude that the atmosphere which was admitted to the roots did not enter the system through the spongioles, or that the air and water applied did not contain animal and vegetable remains, arising from the circumstances in which the tree was placed amid a large population perhaps, or in a district or locality notoriously miasmatic and consequently favorable to vegetable growth?

How do subterranean vegetables, such as truffles, or how do sea weeds on rocks and gravel banks beyond low water mark obtain their food? Do the winter buds of trees derive their spring supplies, immediately from the air, or from deposits of starch and albumen at their junction with the soft wood? How are the sprouts of potato tubers produced in dark cellars? Do not the infusoria and polypi imbibe food from the surrounding elements by every possible channel of introduction; then why not living beings still lower in the scale and so favorably situated for such mode of sustenance?

Is not pruning intended partly to check an exuberant growth of leaves and shoots, thus enabling trees to elaborate their food for the benefit of blossoms and fruit? (Was ever fine fruit raised on ground entirely destitute of humus?) Why do we economize their strength, if the air is all sufficient to provide the organic elements, and if the soluble salts in the sap are always available at the season of efflorescence? Even if timber be the object, why lop off the branches if it is through them the tree is to gain its carbon and nitrogen, supposing of course that there is no scarcity of minerals in the system or in the soil?

In the absence of proof to the contrary, may not the albumen or soft wood be furnished with carbon or additional liquid by means of the sap ascending thro' its pores; and may not the carbonic acid absorbed by the leaves and young shoots be chiefly directed to the external parts? If a moderately sized branch be girdled for the length of an inch, provided the albumen be not materially injured, the bark below the ring seems able to draw sustenance from below, which would not be the case if its life depended entirely upon the descending sap.

If it be contended on our part that carbonic acid, ammonia, and water, form a part and parcel of most soils, and if plants can be proved to appropriate them by their appearance in the ascending sap vessels of the roots, ought the atmosphere be claimed as the sole supporter of vegetable life? May not the equilibrium of matter by some undetermined law require the condensation of substances usually gaseous, and their admixture with the ocean and superficial crust of the earth: by parity of reasoning, may not the solution of materials usually solid, and their admixture with the atmosphere be required—such materials as compose aerolites, meteors, volcanic effluvia, and possibly miasmatic emanations from the ground?

May not the formation of the humates, crenates, &c. of lime, ammonia, and other bases in the soil be a natural arrangement, whereby substances under other conditions liable to be speedily decomposed, and a part fly off as gases, and another sink below the surface level may become more stable and always reached by plants? May not such compounds be more easily absorbed, digested, and assimilated than raw materials, by which I mean the same elements

in a separate or rather simpler state? Would it seem to be of an intermediate consistency, and by constant accumulation on the earth's crust, may be regarded as a reserve for future generations of plants, if the ingenuity of man does not prompt him to take immediate advantage of so inestimable a treasure.

If nothing is gained by turning under green crops, why do they consecutively improve, supposing that there is plenty of mineral matter in the soil at the first start, and the ground every way prepared?

Does not a part of the inorganic substances in the circulation of animals, after having done their duty of dissolving and introducing organic matters, and of becoming, perhaps, temporarily fixed (the alkaline earths permanently in the osseous system) return again to the *prima viæ* to resume the same course? Then why is not the same rule applicable to the vegetable circulation, unless proved otherwise by undeniable evidence? Has the ascending sap been shown to contain none of the organic elements, or the descending sap to contain no more of the inorganic elements than just sufficient for the texture of the roots, without surrendering any as excrementitious; or rather, is no semiorganic secretion deposited in the ground analogous to the bile in the intestines of animals, again to enter the circulation when required?

If chemical and vital forces combined can accomplish results, such as the formation of woody fibre in the leaf, why may not a modification of the same forces to a certain depth under ground cause the solution of the so-called insoluble humates, &c. and their appropriation by the roots? Is the laboratory of the chemist to decide the possible operations in the laboratory of nature?

When we consider the small amount of the mineral portions of vegetable products, why does not a corresponding adequate dose of the same, fairly distributed over a barren field, suffice to reward the agriculturist a hundred fold for the labor bestowed in ploughing, &c. Have the prairies of Illinois or the oak openings of Kentucky and Michigan, no advantage over the pine barrens of New Jersey or the worn-out clays of Maryland, greater than a few loads comparatively of mineral manures will supply?

R. S. W.

BLACK WEEVIL—GRAIN MOTH.

To the Editor of the American Farmer.

SIR:—In your last excellent number of the Farmer, I find a communication over the signature of "W." on the subject of the Black Weevil, elicited by a communication in your former number, from Col. Atlee, of Carroll county, in which he gives us a remedy against their depredations. I find upon examination that it has reference to a very different insect to that referred to by the Colonel. It is known by Entomologists as the *Angonnois Grain Moth*—It seems to have derived that name from Angonnois, a part of France, where it is exceedingly destructive. The Academy of Paris appointed a committee of scientific gentlemen to inquire into the nature of this insect, as far back as the year 1760, with a view to discover a remedy against its depredations. The report of that committee corresponds so nearly with my own observations on their habits, that I shall take the liberty of asking you to publish a synopsis of it; to a part of which I am indebted to Dr. Harris' valuable work on Entomology.

My attention was first attracted to this destructive

little insect about 3 years since—I thrashed out a lot of Mediterranean wheat, about the 1st of August, which weighed 64½ lbs. per bushel; during the subsequent month of February I thrashed the balance of my wheat, which weighed only 52½ lbs. per bushel; in that part of my crop, of 500 bushels thrashed out in February, my loss was 6000 lbs. of wheat.—This was sufficient to arrest my attention—I commenced an examination, and discovered a large majority of the grains perforated with small holes, and by pressing it firmly with my thumb nail, I discovered it was hollow, the inner part having been destroyed by the insect, which made its escape through the hole in the grain. I then placed some of the sound grains in a small glass jar, and at my leisure could see the insects in the spring coming out, so exactly described by the following report: "It is a four winged insect about three-eighths of an inch long.—Its upper wings are narrow, of a light brown color, the lower wings are an ash colour, having the lustre of satin; they cover the body horizontally above, and drop a little at the sides.

"This moth lays its eggs, which vary in number from 60 to 90, in clusters, on the ears of the wheat, rye, and barley, most often while these plants are growing in the fall, and the ears are young and tender; sometimes, also, on stored wheat in autumn.—Hence it appears that they breed twice a year; the insects from the eggs laid in the early part of summer, coming to perfection, and providing for another brood of moth worms in the autumn. The little worm, like caterpillars, so soon as they are hatched, disperse, and each one selects a grain, into which it burrows immediately at the most tender point, and remains concealed therein after the grain is harvested. It devours the mealy substance within the hull; and its destruction goes on so evenly, that it can only be detected by the softness of the grain or the loss of its weight. When fully grown this caterpillar is not more than 1-5 of an inch long. It is of a white color, with a brownish head.

"Having eaten out the heart of the grain, which is just enough for its wants, it spins a silken web or curtain to divide the hollow, lengthwise into two unequal parts, the smaller containing the rejected fragments of its food, and the latter cavity serving instead of a cocoon, wherein the insect undergoes its transformations. Before turning to a chrysalis it gnaws a small hole nearly or quite through the hull, and sometimes also through the chaffy covering of the grain, through which it can make its escape easily when it becomes a winged moth. The insects of the first, or summer, brood, come to maturity in about three weeks, remain but a short time in the chrysalis state, and turn to winged in the autumn, and at this time may be found, in the evening in great numbers, laying their eggs on the grain stored in barns and granaries.

"The moth worms of the second brood remain in the grain through the winter, and do not change to winged insects till the following summer, when they come out, fly into the fields in the night, and lay their eggs on the young ears of the growing grain.—Where damaged grain is sowed, it comes up very thin; the infected kernels never sprout, but the insect lodged in them remain alive, finish their transformation in the field, and in due time come out of the ground in the winged form."

Remedy.—Thrash your wheat directly after harvesting, and have it ground and packed—put your wheat intended for seed, into an oven, heated to 104° Fahrenheit's thermometer, leave it in 48 hours—you thus may exterminate them.

I was much surprised, upon enquiring among a number of farmers, to find not one who had ever discovered the depredations of this insect. I see, however, by "W's." communication, it is beginning to show itself—farmers may rely upon it, that unless the remedy is early applied, it will soon prove a scourge second not either to the Hessian Fly or the Potato Rot. They do not confine themselves to wheat, rye or barley; in my corn house, I have kept corn over summer, which has been entirely destroyed by them, every grain on the ear perforated. I have found a remedy for this also, by putting the corn I wish to keep over summer away in the husk, husking it as I wish to use it.

"W's." theory about cutting wheat grain, and allowing it to heat, is plausible, and no doubt hastens the maturity of the moth—so well convinced was I of this, that the next year after my discovery of the extent of their depredations, I stacked my wheat out, thinking my fine warm stone barn acted as a patent hatcher, but found about the 1st of September upon beating my stacks with a long rod on a fine dry day, the rascals flying in every direction. I thrashed out my wheat at once and sold it. My seed I heated, and I expect to get rid of this pest by persevering in it a few years. Mr. Editor, although a subscriber to your paper for many years, I have not often troubled you with communications, but feeling this subject to be a serious one, I hold it to be my duty to speak right out—I might occasionally say something on the subject of fruit and fruit trees if it would be agreeable to you. J. S.

Baltimore County, Md.

THE TIME FOR CUTTING TIMBER.

Near McKinstry's P. O., Carroll County, Md. }
December 11th, 1847. }

To the Editor of the American Farmer.

SIR:—Nearly seven years experience in felling and working timber for Millwright work and other purposes, and information from the aged and experienced, induces me to send a few remarks on the same. If you deem them, or any part of them, any use, they are at your service.

I felled, dressed, put in and took out, after decayed, twenty-five white oak mill shafts. 7 of them were of old and sound trees of a slow growth, the annual rings or grains small; felled between September and March; average durability 20 years. 8 of them were of young and sound trees of a rapid growth, the annual rings or grains large; felled 5 in February, 3 in summer; those felled in February decayed in 12 years—those felled in summer in 8 years. Some of them were of trees decayed either at the top or bottom, the decayed parts were taken off, and the shafts appeared perfectly sound, average durability 6 years.

I put in and took out (after decayed) 17 Forebays or Trunks, 3 were old, sound and seasoned white-oak timber, felled in February, average durability 21 years; 2 were of middle aged green rock oak timber, felled in March and April, average durability 12 years; 5 were of middle aged sound white oak timber felled in the summer—average durability 10 years. 6 were of white oak timber of rapid growth, part felled in the winter and part in the summer—the winter felled was 3 years more durable; average durability 8 years. One was of white oak timber, the trees part decayed; decayed parts were taken off, decayed in 5 years.

I made and put in 20 water wheels, and took the

same out after decayed; 10 were made of old and sound white oak timber, felled in the winter, average durability 18 years. 8 were of young white oak timber of rapid growth, part felled in the winter and part in the summer; that felled in the winter 4 years more durable; average durability 9 years—2 were of white oak timber; parts of the trees were decayed; all decayed parts thrown away; decayed in 6 years. I made and put into mills 9 bay wheels of green young and quick growth white oak timber, felled in the summer; took the dry rot and broke down in 9 years.

I also made a number of bay wheels of seasoned white oak timber, felled in the winter, which are yet perfectly sound. I have in many instances repaired mills, the bay wheels were perfectly sound—I was informed by respectable authority "that they had been in use from 40 to 60 years, and that they were made of old seasoned white oak timber, that was felled in the winter."

I have taken out no mill husks that I put in, but I have examined the timbers in several, and have found the timbers made of old and sound trees felled in the summer decayed; that of young timber has been replaced by other timber several years, and those pieces taken off decayed trees have invariably been useless in 6 or 7 years.

I repaired 4 mills, of which the husk timbers were very sound; I was informed that 2 had been in use 35 years; and 2, 40 years; and that the timber was of old white oak felled in the winter. I took two husks down which had been in use 18 years; it was made of young and tough white oak timber felled in the summer.

I have frequently placed timber under Forebays, in water houses and bay pits, of old and young trees, equally exposed to dampness—that of the old is yet sound, that of the young has decayed. I have made similar experiments with timber taken from trees that had some decayed parts, in no instance has it been more than half as durable as young timber.

I have made similar experiments with winter and summer felled timbers; those felled in the winter have in every instance been more durable than the summer felled by 25 per cent.

I have frequently had timber sawed through the heart or centre, and used for posts and other purposes, and placed by the side of timber with the heart or centre in, of the same quality, and felled at the same time—it has in every instance been from 30 to 50 per cent. more durable.

I have in many instances raised wall sills or plates one inch above the wall by means of flat stone or slips of wood; others in the same building would be placed on the wall in mortar; those raised have invariably been from 30 to 50 per cent. more durable, when exposed to dampness.

In the spring of 1817, I assisted to put up two gate posts, of old and sound white oak timber, felled in the previous winter, they are yet standing and appear sound. In May following 4 others were felled, and put up of young and tough white oak timber; they have decayed and fallen 12 years ago—they were hewed of an equal size, and stood within 60 yards of each other. Several years back I noticed a fence, the rails appeared very much weather beaten; on enquiry I was informed "that they were made upwards of 50 years, and that they were made out of very old white oak timber felled in the winter."

Near the same time, I was pointed to a post and rail fence, which I was informed had been put up

upwards of 50 years, and that the posts and rails were made of very old and sound white oak timber felled in the winter; many of the posts appeared sound.

Many more similar experiments and information (obtained from the aged and experienced) might be produced, but enough has already been said to prove to the satisfaction of unprejudiced minds, that timbers of young trees, or of trees of rapid growth in good soils, or at such distances from tree to tree as not to rob one another of their food, or standing singly in fields or meadows, are not so durable when exposed to dampness as timbers of aged trees, or trees of slow growth and small rings or grains, (the rings or grains are formed) of hard impervious wood; between them is a soft spongy substance, which will absorb water rapidly, consequently the smaller the rings or grains the less water will be absorbed. And that sap is destructive of, and dryness favorable to durability of timber; winter season consequently must be the proper time to fell with a view to its durability; trees at that time are more devoid of sap than when in a state of vegetation timber; if saturated with sap, when filled becomes when seasoned porous, and if exposed to dampness, it will be liable to dry rot, whereas the reverse is the case with timber felled in the winter season, when the tree is devoid of sap, its fibre close, and its texture firm. And that the durability of timber of trees in which parts are decayed, is not worth 10 per cent. of sound old timber felled in the winter, provided it is exposed to dampness; and if kept in the dry, its toughness, strength and durability is improved.

Yours, respectfully,

ISAAC BROWN.

GENERAL REMARKS,

BY A PATUXENT PLANTER.

To the Editor of the American Farmer.

MR. EDITOR:—My thanks are due to you for that neat little book, the "Diseases of Animals," by S. W. Cole, Esq. It really is *multum in parvo*, and no mistake. For a book so unpretending in appearance, it is as valuable a production for the farmer as any that has been lately issued from the press.—With that book in his pocket, a farmer has always with him an experienced veterinarian—an intelligent and humane friend and adviser, that teaches him how to treat all his stock, both old and young, sick and well—gives useful lessons upon the comfort of animals, and points out the facile way to increase his wealth at the same time he is practicing that principle of christian charity which proves him a "merciful man," for he "is merciful to his beast."—I would advise every farmer to possess a copy. While looking it over I came across this passage—"Horse-radish root is valuable for cattle. It creates an appetite, and is good for various diseases. Some give it to any animal that is unwell."—No doubt of it, but too much of it will kill cows, and they will sometimes eat of it until they die from it. This I know from sad experience, having lost a valuable Devon cow from eating too much horsh-radish root. Her paunch was literally burned through, looking like it had been exposed to a scorching fire for some time. "*Salivation or slobbers*," usually attributed to the second crop of clover, but he says "it is evident that clover has no such an effect, from the nice experiments that have been made." This is the first time I have ever seen this assertion in print; but my own conclusion, from close observation for years past, has been in accord-

ance with this fact as stated by Mr. Cole. Upon some fields horses will have the slobbers badly; on others they never have them. This year my horses did not have them when running on a second crop of clover, but being turned on another field where no clover was, but which contained crab-grass and other apparently good grasses, they had the slobbers very badly.

"*Galled Back*.—White lead moistened with milk is an excellent remedy."—I believe it to be a capital remedy for most sores—better than tar or turpentine and oil. Col. W. D. B. always uses it with effect. At his suggestion I tried it on a sore leg of a mule. It was very beneficial.

As an illustration to his chapter on "*Swine*," he has judiciously selected a fine print of a *Chester* sow. There can be now no doubt that they are the best hogs for the *plantation*, where no extra pains are taken with the hogs; for they are thrifty, hardy, and as Mr. Cole says, "are noted for large size, rapid growth, early maturity, and propensity to fatten; they are also distinguished for symmetry and beauty of form."

The author of this little work strongly recommends the use of corn, ground cob and grain together, for horses, and assigns various excellent reasons for the same.—When all admit the propriety of such a course, why is it that so few of our farmers are seen following it? Why do they still keep on in the old beaten path that is so expensive and leads on to ruin? This subject brings forcibly to my mind the much improved "Portable Grist Mill" and the "Cob-crusher" and "Grinder" that I saw at that fine establishment of Messrs. Robt. Sinclair, Jr. & Co. when I was last in your city. It seemed to me that it was all that a farmer wanted, and that the day was near at hand when *water and wind-mills* were to be looked upon as things that "*had been, but are not now*." I mean country mills for grinding corn—those mills so fruitful in yielding *toll* to their owners—in vexing customers by disappointments and short measure—in detaining often for days a cart, man and six oxen, to grind a dozen bushels of grain. This is a common occurrence in our country, where mill-streams are scarce and grog-shops plenty. Any man who has a farm of 200 or 300 acres would in one year save enough to pay for a horse-power and the articles above mentioned, by buying them and being his own miller—taking his own toll and saving the great difference in feed between *ground* and *un-ground* food. I take pleasure in heartily concurring in your views as expressed in the Nov. No. of the Farmer, concerning Mr. Maynard's beautiful mill, and its fitness for the purposes it was intended.

In speaking of Tobacco, in your last number, you allude to Col. B. having a treatise on the subject. I have seen it, and it is a practical essay, embracing the whole subject in its culture, preparation for market; its commercial relations to other products; its various uses and manufacture, and, indeed, he views it in all its various phases; but I opine the Col. is not the man this time to answer your complimentary call. He says "he wants for *that article* something *harder and more solid* than *soar*, even if it was manufactured by his friend Sands." I learn that an article on tobacco will appear in the January number of that able work, the "Farmers' Library," and will be handsomely illustrated by colored engravings of the insect—so troublesome and injurious to its growth and perfection. We want more light on the subject of Tobacco. It is a *great interest*, second only to *cotton*, and how little is said in regard to it by our agricultur-

ral writers! I was pleased to see a paragraph in the "American"—that excellent commercial paper of your city—which stated that the crop throughout the Union would not be more than half as large this as last year, and that it would be better, therefore likely to raise the price of the article and the standard of excellence. That is what we planters want. The "American" can lose nothing by its occasional notice of this great staple of our country.

The Potatoe Rot is destroying almost totally the crop. The mercers are more affected than any other kind. So far my white mercer potatoes are going daily with it, and it is so with all my neighbors. Mr. Gowen's "Lady Fingers" stand it admirably; the purple mercers are not touched as yet with the disease, and that Prince of potatoes,—the Bowie Seedling, weathers the storm nobly. Out of 200 bushels of the latter variety, I have not lost half a bushel, and those had not the horrid smell that the mercer has when it is decayed by the rot—so that I cannot say that they have the disease at all, although a few have rotted; but it was a decay similar to what has always been seen among potatoes. I am pleased to hear that several have followed the suggestion of your correspondent, made some months since, and have saved seed to raise seedlings. My friend, Mr. G. Graham, raised some the present season of very promising appearance, and entirely free from rot, as all seedlings are, I learn, for some years at least. Mr. G. is one of our best planters, and at a more convenient season, your correspondent will notice particularly his extensive estate, so neatly and orderly managed, showing skill, taste, system, and industry on the part of its hospitable proprietor. While talking of potatoes, I will mention a curious circumstance in regard to the growth of the "Lady Fingers." When Mr. Gowen sent them to me, it was late in the season, and they were not planted until after the 25th of June. Just one half bushel were cut in pieces, leaving one or two eyes to each piece; one or two pieces put in a hill; the hills 3 feet each way; a hand full of coarse barn-yard manure put in each hill, then covered with the hoe—worked once with hoes, and three times with shovel plow, used for working tobacco. On 20th October they were dug. The yield was *fifty-two heaping half bushels*. Wherever a joint of the vine had been covered with dirt, small potatoes started from each side of the joint—and I have now a portion of one vine which has three potatoes, from one to two inches long, attached to the vine, just below the *apple or seed fruit* on the top of the vine where the blossom grew; thus the blossom actually was lying on the top of the growing potatoes. This was what I called growing at top and bottom and all around, tho' Mr. G. said in his letter to me, that they were not a *prolific potatoe*, "but remarkable as an early variety."

"Improvement of Worn-out Lands," would seem to be a subject not easily "worn out;" for each month brings "another Richmond in the field" equal to either of the two original disputants, while it would seem that even they are still armed for the fight. It has certainly been productive of good, and its effects will hereafter be more sensibly felt than *even now*. "The Dutchman" comes with his *whole team* and does himself credit—and "B. I. S." is hailed with pleasure by all who know who it is that claims those initials; for he will, I hope, take your hint and contribute frequently to your journal, which would be a valuable acquisition to your host of contributors, for he is a ready writer—a close observer of men and things, and has much practical wisdom.

PATUXENT PLANTER.

BLUE MARL IN THE VICINITY OF FREDERICKSBURG, VA.

To the Editor of the American Farmer, Baltimore.

As an erroneous opinion prevails extensively as to the manner of applying Marl to exhausted lands, and also with regard to the *time* required after its application for this valuable manure to produce a fertilizing effect, which will be clearly manifested by increased crops of clover, grain, &c., I submit the following detail of experiments which may be of use to some of your readers. Before I enter upon this detail, however, permit me to point out one error, which has led many to underrate the value of Marl.—Some persons, have very injudiciously carried out this article on their fields, scattering it and turned it under *immediately* with large ploughs; and as they have seen but little effect for several years, they have come to the conclusion that Marl is very tardy in producing a fertilizing effect on the soil, and therefore, they have abandoned the use of it, as entirely unfit for this *locomotive* age. The fault, permit me to say, lies not in the nature of the Marl, but in the improper manner of using it.

This position will be abundantly illustrated and confirmed by the following detail of experiments:

1. Several experiments made by Mr. Richard Hill in King William County, Va., and published in the "Farmers' Register, Vol. 9th, Page 25.

"In 1814 (says Mr. Hill,) I commenced building a mill, and, in digging out the foundation in a few feet of the surface struck upon a bed of Marl, of which I thought but little, being more intent on the mill at that time than the improvement of land, so very poor as to be beyond all hope of recovery. Nevertheless, having some corn growing not far from the mill, I carried a wheel-barrow full of Marl fresh from the pit, to be strewn between two corn rows about the space of 25 yards, and the same quantity of Marl between two more rows, and across the first the same distance. This was done about the last of May or the first of June, and the corn cultivated just as all the rest of the field. The Marl produced not the least effect, for good or for evil. In the spring of 1815 I sowed the field in oats, and when the oats in the field generally, were ankle high, the cross mark where the Marl was put was knee high, the former being of a pale sickly color, the latter *deep green*, and might be seen at the distance of 300 yards. *With this trifling experiment I was aroused at once.* (Would that we had some of this rousing in Stafford county, Va.)

"There was no room for doubt, two facts were immediately established, viz: the great value of Marl as a manure, and the certainty that it would not act on poor naked land, until it was acted on by a winter's frost." (Here, Mr. Ruffin the intelligent and experienced Editor of the Farmers' Register makes the following note: "The latter inference was altogether mistaken. It was not the action of frost, but proper mixture of the Marl with the soil, which was wanting. If Marl is first applied to the land, but the hour before planting corn thereon, and *well mixed with all the ploughed depth*, very great and most manifest effect will be seen by the time the plants are four inches high, perhaps as early and as great effect, as even a very rich putrescent manuring could produce in a short time.")

If the statement made in this note be correct, (and

"Farmers who are beginning to use Marl, will do well to read carefully the numerous experiments published in the 9th volume of the Farmers' Register.

I have no doubt of it,) how can it reasonably be expected that marl will do much, if anything, for those who scatter it upon land that has been laying fallow for some time, and immediately turn it under with large ploughs. Is it not evident, that from its greater specific gravity than common soil, the greater portion will sink too deep to be reached by the succeeding plowings, and that the larger portion of its effect will be lost, irrecoverably lost, because this procedure renders it impossible to bring about that thorough mixture of the Marl with the soil, without which its beneficial effect will be comparatively trifling?

"The land (continues Mr. Hill) that this experiment was made on was very poor, light and sandy, but had not been grazed for several years. In the autumn of 1815, I commenced carrying out Marl on the field for the next year's crop of corn, and in the beginning made a series of experiments. It was strewn on six rows about four hundred yards long 5 feet apart, and at the rate of 250 bushels to the acre—on six more adjoining at the rate of 300 bushels to the acre—on six at 400—six at 500—and so on up to 1000 bushels to the acre. The land very poor, acid, and much stiffer than that on which the first experiment was made. The rows on which 250 and 300 bushels were put, produced the best corn, and all as high as 600, yielded double the quantity that it would have done without the Marl; from 600 and upwards, the crop was less and less, and the 1000 bushels' rows brought none. The rest of the field was finished out at the rate of about 300 to 350 bushels to the acre.

The whole field was put in wheat the succeeding autumn, and produced four times as much as it did in 1812, no disaster of any kind happening to either crop." (Here it must be admitted was prompt and efficient action.)

"The rows that received most benefit in the corn crop had the same effect on the wheat.—The 1000 bushel rows had no wheat, and the year following had no grass, but was as naked as a wheat-treading yard." From these interesting experiments made by Mr. Hill, we learn that it is bad policy to use too much of a good thing, and that in the application of Marl to poor land, the quantity per acre should not exceed 400 bushels.

Experiments Nos. 1, 2 & 3, were made by me on the Potomack Silk farm, which lies six miles northeast from Fredericksburg, and about half a mile east of the Richmond, Fredericksburg and Potomac Railroad. The first experiment made on this farm was commenced in the autumn of 1836. The land on which it was made was so poor that a tenant who, at that time cultivated the farm had for several years abandoned it as unfit for cultivation. Seven acres were followed in September, 1836, and blue Marl at the rate of 350 bushels to the acre, was scattered after the ploughing on $3\frac{1}{2}$ acres, and wheat was sown on that, as well as on the remaining $3\frac{1}{2}$ acres which were not marled, the marl and wheat being harrowed in at the same time. In the month of February, 1837, the seed of red clover was sown at the rate of a gallon and a half to the acre. There was a fine growth of straw, enough to leave no doubt of the efficacy of marl as a manure, but the yield of grain was inconsiderable, the failure being caused by a violent thunder storm which occurred when this wheat was in bloom. In Sept. 1837, the $3\frac{1}{2}$ acres which had been marled was clothed with a beautiful growth of red clover, so luxuriant as to convince the most incredulous of the great value of Marl as a manure. The portion of the field which had no Marl, although it had a gallon and a half of clover seed to

the acre, had only some scattering bunches of clover four or five inches high. This land although it has been cultivated every year, for six years past, either in corn or oats, still retains the fertility imparted by the Marl.

The second experiment made on this farm commenced in the fall of 1845.—500 bushels of blue Marl were scattered on an acre of land thickly taken in broom-grass, in the midst of which, without plowing or other cultivation, the Marl was scattered, and in March, 1846, three gallons of clover seed were sown on this acre. In June 1847, the clover had possession of this land and had reached the height of 16 to 24 inches, thus without the aid of cultivation or manure (except the Marl) getting the mastery of the broom-grass.

The third experiment on this farm commenced in the fall of 1846.

Four hundred bushels of blue Marl were scattered on an acre of land, in the midst of broom-grass, on which two gallons of clover seed were sown in March 1847. In June following the clover was found to be well taken, being from ten to fifteen inches high, and I confidently believe that by the middle of June 1848, this clover will reach the height of 24 to 30 inches.

The "clear and unquestionable" deduction from the experiments is, that Marl is a prompt, efficacious, and durable manure, and that regions which abound in deposits of this article, are blessed with mines of inestimable wealth.

LAYTON Y. ATKINS.

Fred's, Va., Nov. 1847.

A LIBERAL PROPOSITION.—In the Marlboro' (Md.) Gazette is published the following letter from C. B. Calvert Esq. of that (Prince George's) County:—
RIVERSDALE, Dec. 2, 1847.

To the Editor of the Marlboro' Gazette:

SIR:—Having now a very large herd of full-bred Durhams, and being desirous of disseminating more generally, so superior a race of animals, I propose, through the medium of your valuable journal, to present all the male Calves, which may be produced from my finest Cows, to those Farmers or Planters who shall signify a desire to possess one. The Gift will be coupled with a condition that the individual shall execute a bond, at the time of receiving the Animal, to give him good treatment, and also to exhibit him for three successive years at the Annual Fair of the Prince George's Agricultural Society, or forfeit and pay over to the Treasurer of said Society, the sum of ten dollars for each and every such failure.—The applications will be recorded in the order in which they shall be received, and the distributions will be made agreeable to the Miller's rule. The Calves will be taken from the Cows and taught to drink milk, and the subscriber will expect them to be taken away so soon as the individual shall be notified by him that the Animal is ready for delivery.

Very respectfully, Your obt. serv't.,

CHAS. B. CALVERT.

The Gazette says, the Calves thus liberally offered, would sell readily for \$30 or \$40.

FINE PICKLED CABBAGE.—Shred red and white cabbage, spread it in layers in a stone jar, with salt over each layer. Put two spoonful of whole black pepper, and the same quantity of allspice, cloves and cinnamon, in a bag, and scald them in two quarts of vinegar, and pour the vinegar over the cabbage, and cover it tight. Use it two days after.

WORK FOR JANUARY.

In all sincerity and singleness of heart we tender to our patrons the compliments of the new year, and hope that they and theirs may not only live to enjoy many returns of this joyous season, but that they may so live that the retrospect will be filled with associations as pleasant as profitable, and that the coming season may prove one not only of fruitfulness, but one in which the husbandman may find himself amply rewarded for all his toils.

Having thus paid our respects, in deference to a much honored custom, we will proceed to give our customary advice about matters in which the affairs and economy of the farm are concerned, and before we do so, would be permitted to conjure every agriculturist, to commence the year with a firm and resolute determination to economise time; to so regulate his farm management, that nothing which should be done one day or week, shall be deferred for a single day; to always keep his tools and implements in good order, in their proper places, and when not in use, in a house provided for their accommodation; to have stabling and shedding provided for all his stock of every kind and denomination, and see that they neither suffer from the elements, nor from want of food, and last though not least, to keep a journal, in which to put down all his operations at least a week ahead.

Having concluded our admonition, we will enter into a few particulars of the work which should be attended to during the month

ON THE FARM.

Fire-wood.—As this is a matter in which every head of a family should, and doubtless does, feel a deep and absorbing interest, we will advise that every farmer should consider himself morally bound in duty to have a pile in his yard during this month, which will be sufficient to last him during the entire year; therefore let all push ahead and accomplish the desirable task.

Fencing.—So soon as you have secured your supply of fire-wood, set your hands to getting out as many posts and rails as will serve to make all the new fences you may design to put up, and to repair the old ones. The timber for these purposes being once felled and cut into lengths can be hauled into the barn-yard, where, under cover, your hands in the inclement days of winter should be employed to fashion them into shape, so that your posts and rails may be ready in early spring to be put up.

Winter Ploughing.—Avail yourself of every auspicious season during winter to plough up your stiff grounds intended for spring seeding; but be sure not to plough such grounds when wet.

Surface Drains.—See that your surface drains in your grain-fields are kept free from obstructions.

Threshing Grain.—See that this duty is early attended to, in order that you may be in a condition to avail yourself of every favorable change in the markets, and not be left to the cold mercy of speculators. Re-

collect that the labor of growing grain has been yours, and that the profit should be yours also.

Horses and Stables.—See that your horses are not only allowed, but that they get, a liberal allowance of grain and hay daily, that they are curried and brushed twice a day; that they are fed at regular hours, say three times a day, and watered as often; that they have good clean straw at all times for bedding; that thrice a week, they receive salt, or a mixture of salt, lime and ashes.

Mares and Colts.—Let these receive the care necessary to enable the one to give milk, and the others to grow and elaborate flesh, bone and muscle, to say nothing of fat, which by the bye, is not an unsightly thing in and around a man's stables and barn-yard.

Cattle, and Cattle Sheds and Yards.—Let it be your daily duty to oversee those who have charge of the feeding of your cattle; the trouble to you will be trifling, but the benefit to your cattle will be invaluable. Your eyes will add much to their condition, as the presence of the master never fails to make even the most faithful servant or slave the more faithful, and to inspire him with that ambition to excel which never fails to tell upon the appearance of the stock under his charge. Each head of cattle should receive a handful of salt thrice a week, be regularly fed and watered at regular periods of the day, while the sheds and yards in which they may be confined should at all times be kept dry. And no prudent farmer, who may be careful of his interests, should ever fail to cover the yards in which his cattle may be confined with at least two feet in depth, of good absorbing rough materials, sloping from the sides to the centre, to prevent the riches of the yard from being washed away.

Work Oxen and Mules.—Let all possible care be paid to these faithful creatures. Though they do not require as much feed as the horse, still they are imbued with appetites, and are always the better able to answer the calls daily made upon their strength, when they are daily well fed, at regular hours; they delight also in dry well bedded lodgings, enjoy their semi-weekly allowances of salt, ashes, and lime with as rich a gusto as ever did a descendant of Sir Archey or Messenger, and luxuriate under the curry-comb, card, brush, and whip of straw, with equal joyousness with the best roadster or hunter that ever contributed to the pride of his rider.

Milk Cows.—For these generous creatures we have often pleaded with feelings as sincere as painfully intense, and we have often been gratified to know that we have not pleaded in vain, and the success which has hitherto crowned our efforts thus far, encourage us to make an appeal in their behalf on the opening of the year, and we do so by asking our brother farmers to make early arrangements to plant a few acres in roots, as sugar beets, mangel wurzel, ruta бага, parsnips and carrots, next year to feed

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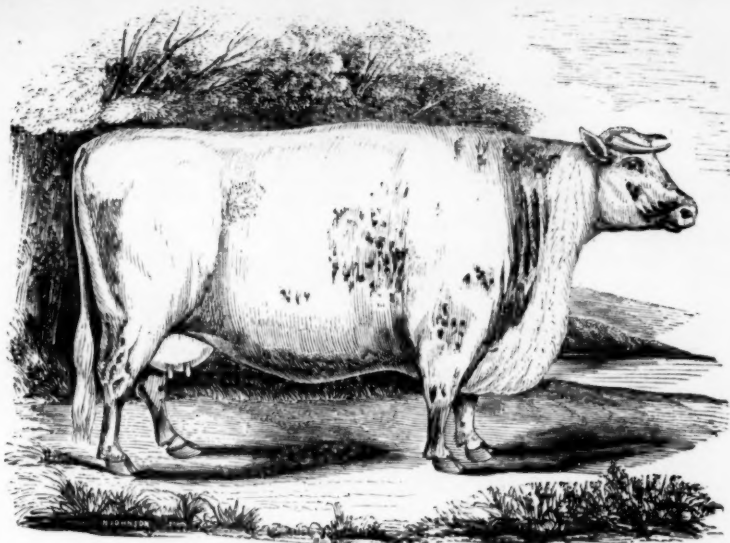


GLEDDHOW, SHORT HORN DURHAM BULL,

THE PROPERTY OF COL. H. CAPRON.

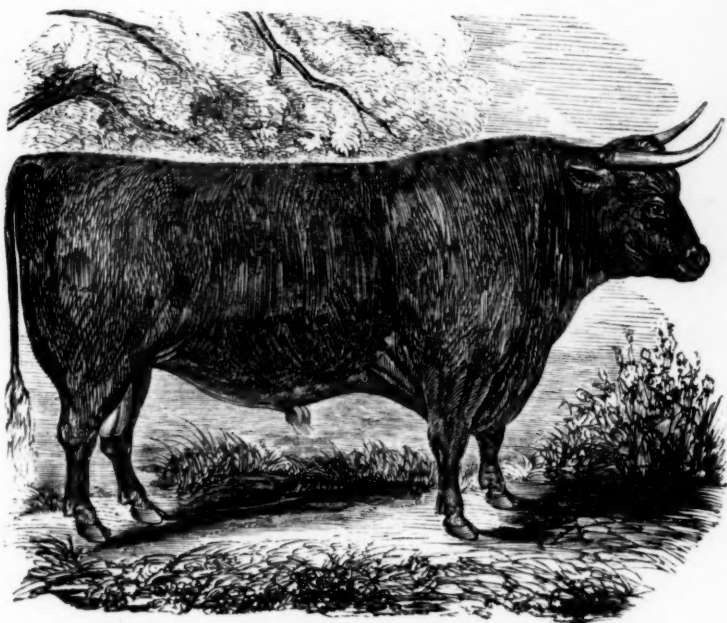
GLEDDHOW received the First Prize at the Prince George's Agricultural Show, in October last, as the best Durham Bull over 3 years old. See Report. (For Pedigree see February No. American Farmer, for 1848.)

[Drawn and Engraved expressly for the "AMERICAN FARMER," by NEVILLE JOHNSON, Baltimore.]



ELLEN KIRBY,

The Property of Col. H. CAPRON,—bred by Mr. James Gowen, Pa.



DEVON BULL ECLIPSE,

The Property of Col. H. Capron.



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to their milch cows the ensuing winter. Either of these roots can be raised at an expense of 8 cents a bushel, all expenses told; an acre *fit* for their culture, properly attended, should produce 700 bushels, and may be made, with *care*, to grow largely upwards of a thousand. If three pecks of roots, in addition to the usual allowance of long feed be given to a cow daily, she can not only be kept to the pail well, but made to yield good rich milk, cream and butter. But while we are looking to the *future*, let us not forget the *present*—therefore, we say to every husbandman, have a care that your milch cows, in addition to their rations of hay, fodder, or straw, daily receive, night and morning, messes of nourishing slops, that they have dry warm beds under sheds, are regularly watered three times a day, and salted thrice a week. Cows are faithful creatures, and return in generous measure every favor and attention bestowed upon them; they contribute as largely to human comfort as any other gift of heaven to man, but it is as unchristian as unphilosophic, to expect them to give flowing pails of milk, or rich cream and butter, when they are left to the piercing winds and sleets, and the cold rains of winter, and have grudgingly doled out to them with stinted measure nothing more succulent than dry hay of the worst and coarsest kind.

Store Cattle, Hogs and Ia-pig Sows.—Without stuffing these, let them be generously fed, and provided with materials to work into manure—and recollect that each of them delight in dry quarters and warm beds—and require to be regularly watered and salted.

Young Cattle and 1 and 2 year old Colts.—If you want good forms, perfect bones, and well developed muscles, in these young creatures, you must feed for it.

Sheep.—Our friends, in the treatment of these will refer to our former advice, as given last month and the preceding one.

Manure.—Accumulate all you can, and see that its riches be neither washed away nor deteriorated in quality. In adding to its volume recollect that every thing which will rot is manure or the material for making it. Have your soap suds put on your manure pile.

Gates.—Employ your hands this winter, if you have not already provided them, in making gates for all your fields.

Fuels.—Provide, under cover, a body of sand, one of lime, and one of ashes for your laying hens—give them occasional messes of refuse meat cut fine, or fresh fish boiled,—these things are essential to the formation of eggs—feed them freely and water them regularly. It is not natural to expect your hens to lay regularly unless they are well fed and cared for. See also, that your turkeys, geese, and ducks have their full allowances.

The examples of early rising, industry, and punctuality, in a farmer, never fail to inspire his hands with ambition, and to increase their exertions.

NOTICE OF COL. CAPRON'S STOCK.

The celebrated red Durham bull, Gledhow, now owned by Col. Capron, of Laurel Factory, Md., a portrait of which is presented with this No., was bred by Joseph Burton, of Chester Co., Pa., who imported his dam. His sire, Yorkshireman, was from the herd of Mr. Bates, of Kirkleavington, England, and imported by Joseph Cope, of Chester Co., Pa.—Gledhow, his dam, and three others of her descendants were purchased for Col. Capron, by Mr. A. Clement, of Philadelphia, in 1846.

HORSE-POWERS—CORN AND COB CRUSHERS—CORN SHELLERS.

We extract the subjoined from a communication of the Hon. *Robt. Chisholm*, which appeared in the December number of the *Albany Cultivator*:

"HORSE-POWERS.—For the information of your correspondent, T. B., of Pleasant Hill, Ala., I would say that Warren's Horse-power can hardly be made, without very material alteration of the machinery, to gin cotton, either by the saw or roller gin, the velocity being very much too great. The best and cheapest horse-power for his purpose that I think he can find, is the *Rail-way Horse-power, made by Mr. Ezra Whitman, Baltimore*, at \$75 for one horse, and \$100 for one for two horses. The only objection that I find to it is, that the horses and mules ought to be shod, which is rather inconvenient in our flat country, where few or no smiths can shoe. But patent shoes can easily be purchased, and an ingenious negro blacksmith, or even a carpenter can put them on. Besides the horse-power costing as little, if not less, in first cost, the very material item of a building 25 or thirty feet square, and 1½ or 2 stories high, is also saved, as the Railway Horse-power can be worked in any shed or room of moderate size, and is certainly of equal, and many think (I myself among others,) of much greater economy of labor. Some who have used both this and the Lever or King-post power, maintain that with a Railway power, two horses will do as much work as four with the other power.

It is necessary, however, in order to adapt Mr. Whitman's power to ginning cotton, to have, instead of the large driving drum, usually furnished with it, of four or five feet diameter, one of 18 or 20 inches,* which will give about the velocity he requires, and will also answer, when he has finished ginning cotton, to grind corn, drive *Hussey's corn and cob-crusher*, or *Goldsboro's corn-sheller*, which is an effective machine, as I can testify from experience, shelling, it is said, 130 bushels clean corn per hour, and is fed by the basket of ear corn at a time."

* The alterations which the writer speaks of have already been made, and the extra drum of the right size will always be furnished with the machine when called for, at an additional price of only \$4.

THE POTATOE ROT.

CARROLL COUNTY, Md.

To the Editor of the *American Farmer*.

DEAR SIR:—Before the opening of the present season I gave my opinion of the cause of "the Potatote Rot," and suggested the probability that sub-soil ploughing would take off the redundancy of water so as to relieve the plant and save the root. I have

been waiting some time to hear from others the result of the experiment, but seeing nothing in the "Farmer" on the subject, I give my own.

Last year I planted early—some time in April—this year I did not plant until after the middle of May. My reason for planting later this season was, that last year *all* the early formed tubers rotted, and the late ones only escaped. This season was the very reverse of the last. All the early planted escaped entirely, while the late suffered exceedingly—indeed in some instances were entirely destroyed. The operation of the sub-soil plough could effect nothing with such flooding rains as we had the latter part of the summer in this vicinity. My crop was made later by the excessive drouth at the time of planting, which continued some time after. When the rains came on, the plants came on with great promise and indicated a vigor I had rarely seen, and so continued until the 14th of August, when we had an excessive rain, which made the surface of the earth a perfect muck. In a few days I saw the effect—it appeared as if a scorching blast had passed over the plant, but no appearance of rot in the root. Exactly two weeks after, we had another such a flooding rain, which gave the finishing blow. In a few days I noticed the appearance of disease in the tubers, while the leaves were dying as if the crop were matured. On taking up the crop, we found the most rot where the ground was most retentive of moisture, and that an early variety of which I had a half dozen rows suffered least, and still less when put away. Many of all the varieties were destroyed by a *dry rot* after they were housed.

I am now more than ever satisfied that the disease is produced by *excessive moisture*, and that all the notions of *fungus*, &c. &c., as well as the disease being contagious, are a great mistake, and that where there is *fungus*, it is *not a cause, but an effect*.

In two different pieces of ground where the rot was very bad last year I grew my early potatoes this season, and there was not an injured one in the whole; while my main crop of late planting was in a piece of ground where potatoes had not been planted, to my certain knowledge, for forty years, and, perhaps, never, and yet these suffered while those escaped.

The early variety, mentioned above, is a *seedling* "Mercer"—in form and flesh exactly like the original, only that they are perfectly white and much earlier—beautiful and excellent and "no mistake." I purpose, if spared, to plant largely of them another year, so that persons may be supplied with a variety superior to any early potatoes I ever saw, and for late, *equal to the best mercer*. They seem also to escape the "hollow heart" to which the old variety is so subject.

Seeing that this would be too late for the December No., I laid it by, and now close by suggesting to the attention of the observant, whether there might not be some peculiarity in the summer rains for the few years past. The rains to which I have reference in the above, affected the corn blades as sensibly as the potatoe stocks.

Your December No. has just come to hand full of interesting matter. Mr. Goldsborough's experience of the "Rot" is the experience of many. May it not be better to plant at several different times, so that some may escape this dreadful malady. I have reason to believe that the rains which produce the disease will not affect the tuber when perfectly ripe. Potatoes taken up early should be put in a dark dry place, where the temperature is low, so as to prevent germination.

Z.

P. S. I have just seen in the Baltimore "American" the opinions of several members of the N. York Agricultural Society on the means of preventing the "Rot." I have no faith in the sanative effects of lime. The ground in which my field crop was planted last year, had the spring previous 80 bushels of lime to the acre, and some 6 or 7 years previous to that, had a dose of nearly the same quantity. The field in which I planted this year had been limed with the same dose about 6 years ago. Whether a more recent application, (say at the time of planting,) would prevent it, I am not prepared to say—but I have no faith in it, yet it would do no harm to try it. Early planting with Mr. Jones was the only security—so it was in this vicinity this year, but not so last year. I understand that in the Israel's creek neighborhood, (Frederick county,) the early planting suffered most—"very much." They had excessive rains early in the season, while with us they, (the rains,) were moderate. We must gather up all the facts, and then we may be able to get at the truth.

In haste, Z.

December 7, 1847

FLAX AND HEMP BRAKE.

Mr. Lewis Sanders, one of the oldest and most eminent promoters of agricultural improvement in the West, has forwarded to the Editor of the Farmers' Library a description of a machine which has been much wanted, and of which the Editors says, "that one of the largest and most accomplished manufacturers of Hemp and Flax in this country, anxious on this subject, and every way disinterested in this case, has expressed his strong persuasion that in this machine we are at last presented with the long-sought desideratum; that is, one which will expeditiously prepare the article for the manufacturer, while it develops and preserves the fibre in all its elasticity, strength, and every valuable quality."

This Brake is the invention of Mr. JAMES ANDERSON, of Louisville, Ky., a subscriber to the "American Farmer," than whom, the Editor of the Library remarks, but few persons have given as much attention to the subject, in all its aspects, with equal capacity and opportunities to form a safe and correct judgment. The importance of the subject induces us to transfer the letter of Mr. Sanders to the columns of the "Farmer."

NEW-YORK, Sept. 20, 1847.

MR. SKINNER—Sir: An old correspondent of your American Farmer wishes to call the attention of persons interested in the growth and in the manufacture of hemp and flax, to the recent discoveries made by Mr. JAMES ANDERSON, of Louisville, Ky., both as to the preparation of hemp and flax, and to his newly invented Brake.

First as to the preparation: It is a fact well known to modern chemists that organic vegetable matter which contains nitrogen in the largest quantities is most prone to fermentation and putrefaction, which occurs spontaneously when it is subjected to moisture and heat.

Hemp or flax contains nitrogen or azotized matter, and of course readily runs into spontaneous fermentation when exposed to moisture and heat.

In preparing hemp or flax for the Brake, persons heretofore have availed themselves of the process of

dew or water rotting, in which the greatest care is required not to materially injure the fibre; but no hemp or flax can pass through these processes without more or less injury. Even under the most skilful treatment the fibre is partially weakened; but the maceration and decomposition has been found necessary to enable the operator to readily brake and clean it.

The albuminous matter which is incorporated in the hark of Hemp and Flax, in large quantities, with the fibre, is the first to decompose; it therefore becomes necessary to render that insoluble and the azotized matter therein inert, if it is retained.

Mr. Anderson effects this by the application of any known antiseptic. He has used the sulphate of iron, and also the sulphate of alumina and potassa, with satisfactory results—producing a chemical change in the azotized matter in the hemp; rendering it unsuceptible of either fermentation or putrefaction; giving unusual durability; adding greatly to its strength; producing an article superior to the best Russia hemp.

Vats of wood or masonry are constructed, suitable for the farm. As soon as the hemp is cured, the operation may begin. For the convenience of putting in and taking out, it should be tied in convenient-sized bundles, cutting off the seed ends (five or six inches) with a broad-axe, on a block, handling it neatly; the vat then to be filled with as much Hemp as it will hold. For every fifty gallons of water required to fill the vat after the Hemp is placed in it, dissolve four ounces of the sulphate of iron, which is recommended for Hemp; fill the vat with this liquor; then, as soon as it is fully saturated, it is finished. Ten or twelve hours is long enough, but staying in longer does no injury; as soon as it is dry it is ready for the Brake.

Pursue the same process for Flax, but, instead of the sulphate of iron, use the sulphate of alumina and potassa. The alum liquor does not change the color—the iron liquor darkens it. By this process the farmer gets his crop to market at least six months sooner than by either dew or water rotting—the product being at least sixteen per cent. greater, as there is little or no waste from tow or over-rotting.

Test experiments have been made in Louisville, Kentucky, taking four samples of Hemp:

- No. 1, a sample of Dew rotted Hemp.
- No. 2, a sample of Water rotted Hemp.
- No. 3, a sample of Riga Rein Hemp.
- No. 4, a sample of Rhodian* Hemp.

These samples were subjected to moisture and heat alternately, each treated precisely alike. No. 1 first became decomposed; next No. 2, and soon after it No. 3: all three completely rotten—No. 4 remaining sound, strong and sweet.

As to the Brake: I send you a drawing of the model of the Brake, deposited by Mr. Anderson in the Patent Office; since then, however, he has changed his plan of working the rollers. As soon as I return to Louisville I will send you a drawing of the perfect machine. It is very simple, and easily made—costing about \$200 for a machine. The rollers and gearing are made of cast-iron—the frame, of wood. But little power is required to move them; two horses will be sufficient for one machine, cleaning a ton of Hemp per day.

LEWIS SANDERS.

I have left at the American Institute, in the City

* The name given by Mr. Anderson to this new process.

of New-York, four samples of Flax, for the examination and inspection of persons interested in its growth or manufacture:

Flax in its natural state. | Flax steeped 12 hours in iron liq'r.
“ water rotted. | “ “ “ alum “

TOBACCO FOR FRANCE.

The following Circular shows the kinds and quantities of the supplies of Tobacco required by the French Government:

DEPARTMENT OF TOBACCO—FOREIGN TOBACCO.

Dealers who may intend disposing of foreign tobacco for supplying the royal manufacture, are informed that their sealed proposals will be adjudicated upon by the Minister of Finance, on Tuesday, the 28th day of December, 1847, as follows:

1. For 1,500,000 kilogrammes of Virginia tobacco, in leaf, of the crop of 1847—to conform to four samples.
2. For 2,000,000 kilogrammes of Maryland, of the crop of 1847, in leaf—four samples.
3. For 400,000 kilogrammes of Kentucky, in leaf, superior of the crop of 1847—one sample.
4. For 3,500,000 kilogrammes of Kentucky, in leaf, of the crop of 1847—three samples.
5. For 700,000 kilogrammes of Kentucky, in leaf, inferior, of the crop of 1847—one sample.
6. For 1,000,000 kilogrammes of Hungarian tobacco, in leaf, of the crop of 1847, one half Debreztzin, conforming to three samples, and the other Szeghdin, also conforming to three samples.
7. For 500,000 kilogrammes of Macedonian tobacco, in leaf, of the crop of 1847—three samples.

A separate proposal must be made for each of these seven parcels—which proposals will be laid upon the table of the Council on the day indicated and at the opening of the sitting, at 1 o'clock P. M. Copies of the list of prices, approved by the Minister of Finance, to serve as the base of each adjudication, will be furnished to dealers, upon application to the “bureau de l'Administration des Tabacs, a Paris,” and at the royal manufactories in Paris, Havre, Marseilles, Bordeaux and Morlaix.

The samples in conformity with which the deliveries are to be made must be deposited at the manufactory in Paris, where they may be publicly examined every day from 12 to 4 o'clock.

CITE. SIMEON,

Counsellor to the State Director General of the Administration.

THE POTATO CROP IN MAINE.

From the following communication, which we copy from the Boston Cultivator, it will be seen that the prospect for the usual supplies of Potatoes, from Maine, is rather gloomy:

Messrs. Editors.—In taking a review of the past season with its varied productions, it is a source of some relief in the fall short of the potato crop, that being admonished by repeated failures, farmers have bestowed less labor in this department and turned their attention to such crops as promised a more certain return; yet the loss is a serious one and will be severely felt.

Of the small amount planted, probably a quarter part were thrown aside in harvesting, as worthless, and more than another quarter have since been taken rotten from cellars, so that we have strong fears that there will not be seed enough wintered for planting.

An attempt at this late day to throw any light upon this drawback upon our labors by way of assigning the cause of rot would be like "gilding refined gold, or painting the lily." Some have imputed it to a disease in the potato, some to a revolution now in process in the bowels of the earth (how do they know this?) others to insects, flies, bugs, and for aught I know to humbugs; which would perhaps come as near the truth as any of the foregoing. Potato tops are probably more sensitive and more easily affected by atmospheric changes than any other vegetable; that they have yielded to these changes, we do know, from the decomposition that has followed or taken place. That this process descends from the tops to the tuber we may infer from the fact that the *top of the potato* is invariably first affected with rot. For further proof that we have been visited by unusual atmospheric changes or influences, our forest trees in September appeared in the "sere and yellow leaf," as if smitten with frost, yet we had no frost. Our grasses for the season past luxuriant and beautiful, have rusted badly. So with beans, wheat, &c. In fact the whole vegetable world seems to have been more or less affected by a sort of extra atmospheric action, especially unfavorable to the potato, but not to corn. Wheat, which a few years since, every farmer in Maine thought to insure a good crop, should be sowed as soon as the ground would admit of harrowing in the spring, now yields best (independent of the weevil) when sown about the first of June, but with the potato, the sooner planted the better, for the early varieties planted very early have almost if not entirely escaped the rot; and the reason is obvious, as they have so matured and their tops so ripened as to be without the reach of the scorching sun and dishwasher showers of August, which have blasted the latter kinds.

As a substitute for the potato, so far as the feeding of stock is concerned, I cannot too strongly recommend the long orange carrot; every farmer should cultivate from a quarter of an acre to an acre, on ground suitably prepared. 1000 bushels is readily obtained to the acre, and there is no surer crop, nor one that yields so large a return for a given amount of labor. The seed should be sowed by the 20th May, in drills eighteen inches asunder; a man with a seed sower can easily sow an acre per day. They are rather tardy in making their appearance, and require pretty close attention in weeding, (at which time the growing carrots should be thinned out three or four inches apart in drills,) until about the middle of July, when they will cover the ground, and no farther labor need be bestowed upon them until harvest time.

HENRY BUTMAN.

Dixmeat, Me., Nov. 8, 1847.

THE POTATO DISEASE.

A Prize Essay by H. Cox, condensed from the Journal of the Royal Agricultural Society of England.

The author commences by saying, that the failure of the potatoe crop in 1845, has given rise to many theories as to its cause, some imagining that it was fungus, while others contend that it was caused by atmospheric influences; this latter is the view the author maintains, principally on the ground that many other vegetables were affected by a similar disease at the same time, citing in this connexion, the ash, oak, poplar, hazel, the vine, the apple, pear and plum; but particularly the walnut, the French bean, mangel wurtzel, carrots and turnips. In the case of the walnut, it gave out of two bushels of fruit not a

single nut, but that exhibited signs of disease. Its leaves also exhibited the symptoms of disease.

All the early varieties of turnips decayed at the top: the Swedes were affected almost as much as potatoes, the orange globe mangel wurtzel were affected in proportion of one in five, carrots at the rate of one in eight. Mr. Cox then proceeds to state other facts in regard to the disease, and shows that certain varieties were less subject to it than others, and especially those which were nearly matured at the time when the supposed cause began to operate, and cites the ash-leaf kidney, which was dug the first week in August, and no symptoms of disease appeared in them. On the contrary those which were a month or six weeks later, and were dug early in September were nearly lost.

In the first week of April, our author planted a piece with second early kinds, called *prolific*, and a few china orange potatoes. The rows ran north and south; one end running up a steepish bank, the other descending into a damp peat. The higher parts of the field were poorer than the lower, the potatoes on the latter grew luxuriant and rank, covering the ground, so that no air could circulate among them. Now the rate at which the ends were affected was as follows: those upon the upper and poorer soil were affected at the rate of one in twenty-seven; those at the lower end, in the rich ground at the rate of one to four. The affection first appears in a brown spot where the tuber is connected with haulm. To ascertain which were diseased, the author sliced off a portion at this extremity from which a practical hint is given: viz. to save from entire loss, ascertain in this way the part of the diseased condition, and use them before they have affected the tube to any important extent; by selecting for keeping those which are diseased, a great saving is effected. Of the cause of the disease in 1845, Mr. Cox believes that the cold damp weather in the latter part of July and first of August when it is usually dry, and which was succeeded by hot sultry weather, had much to do in causing the disease of that year.—The disease is considered as simply a decay which began in the stalks.*

The author next proceeds to consider the

1. To choose sound tubers for seed.
2. Choose dry ground which is not over rich; this precaution is regarded as one of great importance.
3. Choose manures which do not ferment readily, as charcoal dust, peat ashes, &c. An experiment detailed at some length, shows the great advantage of charcoal and peat ashes, over guano, cow dung, horse dung, &c.
4. Give plenty of room that air may freely circulate through the crop.

The author decidedly discourages autumn planting, as has been recommended by some writers.

Taking up and storing.—Let potatoes be harvested in dry weather. If designed for planting, they may lie three or four days on the ground; but if designed

*At one time we entertained similar views as to the part first affected, but have been caused to alter them, by later and more careful observations. The part first diseased is the stem, which is connected with the seed tubers, and the stalks; the disease tends upward. The other vegetables are affected in common with the potatoe plant, we have observed every year, and precisely at the period, when the potatoe itself is affected, examples of which have been stated in this journal.—*Am. Jour. of Agriculture.*

for eating, they should not lie longer than three or four hours. They should be put in a dry situation, under a shed, and if they lie thick should be turned to prevent fermentation, and while here the decayed ones are picked out. The potatoes should afterwards be stored in a dark and moderately damp place, so damp at least as not to generate any dust on the bottom of the store house. A store house expressly for their preservation is recommended, where they can be examined, ventilated, and the poor ones removed.

THE PRINCIPLES OF ARTIFICIAL MANURING.

BY PROFESSOR JUSTUS LIEBIG.

If we compare the experience of farmers regarding the fertility of the soil and the quantity of its productions, we are surprised by a result which surpasses all others in general application and uniformity.

It has been observed, that in every part of the globe where Agriculture is carried on, in all varieties of soil, and with the most different plants and modes of cultivation, the produce of a field on which the same or different plants have been cultivated during a certain number of years, decreases more or less in quantity, and that it again obtains its fertility by a supply of excrements of man and animals, which generally are called manure; that the produce of the fields can be increased by the same matters, and that the quantity of the crop is in direct proportion to the quantity of the manure.

In former times scarcely any attempt was made to account for the cause of this curious property of the excrements of man and animals. Without taking into consideration the origin of the excrements and the relation they bear to the food, it is not astonishing that their effect was ascribed to a remnant of vital power which should qualify them to increase the vitality in plants. Ascribing their influence on the fertility of the fields to an incomprehensible occult cause, it was forgotten that every force has its material substratum; that with a lever, in a mathematical sense, which possesses no extension and gravity, no effect can be produced, no burden raised.

Guided by experience, which is the fundamental basis of all inductive science, and which teaches us that for every effect, there is a cause, that every quality, as for instance, the fertility of a field, the nourishing quality of a vegetable, or the effect of a manure, is intimately connected with and occasioned by something which can be ascertained by weight and measure; modern science has succeeded in enlightening us on the cause of the fertility of the fields and on the effects which are exercised on them by manure.

Chemistry has shown that these properties are produced by the composition of the fields; that their fitness for producing wheat or any other kind of plant bears a direct proportion to certain elements contained in the soil, which are absorbed by the plants. It has likewise shown that two fields of unequal fertility, contain unequal quantities of these elements; or that a fertile soil contains them in a different form or state from another, which is less fertile. If the elements are contained in the soil in sufficient quantities, it produces a rich crop; if it be defective even in one of them only, this is shown very soon, by the impossibility of growing on it certain kinds of plants.

Moreover, it has proved with certainty what relations these elements of the soil bear to the develop-

ment of the plants. Chemical analysis has demonstrated that a certain class of these elements is contained in the seeds; others, in different proportions, in the leaves, roots, tubers, stalks. They are mineral substances, and as such, are indestructible by fire, and consequently remain as ashes after the incineration of the plants or of their parts. Many of these elements are soluble in pure water, others only in water containing carbonic acid, as rain-water; all were absorbed from the soil by the roots of the plants in a dissolved condition. It has been shown that, if in a field, those elements which remain after the incineration of the grain or seeds, are not present in a sufficient quantity, no wheat, no barley, no peas—in a word, none of those plants can be cultivated on that field which are grown on account of their seeds. The plants which grow on such a field produce stalks and leaves; they blossom, but do not bear fruit. The same has been observed regarding the development of leaves, roots and tubers, and the mineral elements which they leave behind after their incineration. If, in a soil in which turnips or potatoes are to be cultivated, the elements of the ashes of these roots are wanting, the plants bring forth leaves, stalks, blossoms and seeds, but the roots and tubercles are imperfect.—Every one of the elements which the soil gives up to the plants is in a direct quantitative proportion to the production of the separate elements of the plants. Two fields, which, under otherwise equal circumstances, are unequally rich in mineral elements of the grain, produce unequal crops. One containing them in larger quantity produces more than another containing them in less. In the same manner, the capacity of a soil to produce tuberculous plants or such as have many leaves, depends upon its amount of those elements which are found in the ashes of such plants.

It results from this with certainty, that the mineral substances which are furnished by the soil, and which are found again in the ashes of the plants, are their true food; that they are the conditions of vegetable life.

It is evident, that from a field in which different plants are cultivated, we remove with the crop a certain quantity of these elements; in the seeds those mineral parts which the soil had to provide for their development, and in the roots, tubercles, stalks and leaves, those elements which are necessary for their production. However rich the field may be in these elements, there can be no doubt that, by several cultures, it becomes more and more impoverished; that for every plant a time must arrive when the soil will cease to furnish, in sufficient quantity, those elements which are necessary for a perfect growth. Even if such a field, during many years, had produced twenty-five or thirty fold the amount of the seed, for instance, of wheat, experience shows that the crop gradually decreases, until at last the amount will be so small as to approach the plant in its wild state, and not to repay the cost of cultivation.

According to the unequal quantity in which the mineral elements of grain, tubercles, roots, seeds, leaves, are contained in a soil, or according to the proportions, in which they have been removed in the crop, the land may have ceased to be fertile for roots and tubercles, but it may yet produce good crops of wheat. Another may not produce wheat, but potatoes and turnips may thrive well in it. The mineral substances contained in a fertile soil, and serving as food to the plants, are taken up by them with the water, in which they are soluble. In a fertile field

they are contained in a state which allows of their being absorbed by the plant and taken up by the roots. There are fields which are rich in these elements, without being fertile in an equal proportion; in the latter case, they are united with other elements into chemical compounds, which counteract the dissolving power of water. By the contemporaneous action of water and air—of the oxygen and carbonic acid of the atmosphere—these compounds are decomposed, and those of their constituent elements, which are soluble in water, but which had been insoluble by the chemical affinity of other mineral substances, reobtain the property of being absorbed by the roots of the plants.

The duration of the fertility of a field depends on the amount of the mineral elements of plants contained in it, and its productive power for a given time is in a direct proportion to that part of its composition which possesses the capacity of being taken up by the plant. A number of the most important agricultural operations, especially the mechanical, exercise an influence on the fertility of the fields only thus far, that they remove the impediments which are opposed to the assimilation of the mineral food into the vegetable organism. By plowing, for instance, the surface of the field is made accessible to air and moisture. The nutritious elements contained in the soil in a latent state, acquire, by these operations, the properties necessary for their transmission into the plants. It is easy to conceive the useful influence which, in this respect, is exercised on the produce of the fields by the care and industry of the farmer. But all these labors and efforts do not increase the amount of mineral elements in the field: in rendering soluble in a given time a large quantity of the insoluble substances, and obtaining by these means a richer crop—the time is merely hastened in which the soil becomes exhausted.

The experience of centuries has shown that, with the aid of manure, of the excrements of animals and man, with which we supply those fields which have ceased to produce crops of grain, &c., serving as food for man and animals, in a sufficient quantity, the original fertility can be restored; an exhausted field, which scarcely yielded back the seed, is made to produce a twenty and more fold crop, according to the proportion of the manure provided.

Regarding the mode of action of manures, it has been observed that all excrements do not exercise an equal influence on plants. The excrements of sheep and cattle, for instance, increase in most fields the crop of roots and herbaceous plants to a far greater degree than those of man and birds, (guano.) The latter act more favorably on the productions of grain crops, especially if they are added to the animal excrements, and are given to the fields at the same time.

A field, for example, which has lost its fertility for potatoes and turnips, but on which peas and beans still thrive, becomes far more fertile, by a supply of the excrements of horses and cows, for a new crop of potatoes and turnips, than by manuring it with the excrements of man or with guano.

The most accurate experiments and analyses have pointed out that the excrements of man and animals contain those substances to the presence of which the fertility of the soil is due. The fertilizing power of manure can be determined by weight, as its effect is in a direct ratio to its amount in the mineral elements of the food of plants. The truth of the result of these chemical analyses must be evident to every one who inquires into the origin of excrements.

All the excrements of man and animals are derived from the plants of our fields; in the oats and hay which serve as food for the horse, in the roots which are consumed by a cow, there is a certain quantity of mineral ingredients. A horse, in consuming 15 lbs. of hay and 4½ lbs. of oats per day, consumes 21 ounces of those substances which the hay and the oats took from the fields; he consumes annually 480 lbs. of these constituent elements of the soil, but only a very small portion of them remains in his body. If a horse, during one year increases 100lbs. in weight, this increase contains only 7 lbs. of those mineral substances which were contained in the food. But what has become of the 473 lbs. which we cannot detect in his body?

The analysis of the fluid and solid excrements which the horse gives out daily, shows that the ingredients of the soil which do not remain in the body of the animal are contained in its excrements: it shows that in an adult animal, which from day to day neither increases or decreases in weight, the amount of mineral ingredients of the excrements is equal in weight to the mineral ingredients of the food.

As with the horse, so it is with all animals. *In all adult animals the excrements contain the ingredients of the soil according to the quantities and relative proportions in which they are contained in their food.*

The mineral substances of the food which have remained in the body of the animals, and served to increase their weight, are found again in the bones and excrements of man, who consumes the flesh of these animals.

The excrements of man contain the elements of the soil, of bread or of grain, of vegetables and meat.

These discoveries explain, in a most simple and satisfactory manner, the fertilizing effect which manure produces on our fields.

It is now obvious why manure renders again fertile the exhausted fields; why, by its means, their productiveness can be augmented; why the latter is in a direct ratio to the quantity of manure administered.

The exhaustion of the soil by subsequent crops, its decrease in fertility, is produced by the gradual removal of the mineral elements, in a soluble state, which are necessary for the development of our cultivated plants. By a supply of manure they are again restored to the state suited to serve as nourishment to a new vegetation.

If the supply of the removed elements of the soil, by means of manure, be sufficient, if the quantity taken away be restored, the original fertility reappears; if the supply be greater, the produce increases; a defective supply gives a smaller produce.

It is now explained why the different kinds of manure exercise an equal effect upon the fields.

The excrements of man and guano, containing especially the mineral ingredients of grain and of meat, exercise far greater influence on the amount of produce of grain in a field in which these ingredients are wanting, even if those of the leaves and stalks are present in sufficient quantity, than the excrements of an animal which feeds on roots or green fodder. The excrements of the latter contain the mineral elements of the leaves, stalks, and roots in prevailing quantity, and have a greater value for the production of roots and foliaceous plants than those of man or of birds, which contain only a small quantity of those mineral substances which they require for their development.

If we compare, for instance, the composition of

guano with the excrements of the cow—solid and fluid excrements in the same state of dryness—it is found, that in an equal weight, the latter contain five to seven times more of the mineral ingredients of turnips and potatoes than the former. If, in a soil which is deprived of all those mineral substances, we wish to force a crop of turnips by means of guano, we require at least five times more of guano than dung of cattle.

The same thing happens, though *vice versa*, if we wish to produce a good crop of grain by means of animal excrements; in this case, one part of guano and five parts of animal excrements, produce the same effect as thirteen to fifteen parts of animal excrements.

To understand the proper meaning of these numerical proportions, it is sufficient to mention that 400 lbs. of bones contain as much phosphoric acid as 1,000 lbs. of wheat; these 400 lbs. of bones can furnish sufficient phosphoric acid to eight acres.

If we take the importation of bones into Great Britain in the last ten years to amount to 1,000,000 of tons, enough phosphoric acid has been supplied to the fields for 25,000,000 tons of wheat; but only a small proportion of the phosphoric acid of the bones is in a state to be assimilated by the plants and applied to the formation of grain. The plants, in order to apply the other far greater part of the phosphoric acid to their formation, must find a certain quantity of alkaline bases beside the bone-earth which are not given to the plants in the bones, because they contain neither potash nor soda.

To have increased the fertility of the fields in the right proportion, 800,000 tons of potash ought to have been added to the 1,000,000 tons of bones, in a suitable form.

The same is the case with guano: 60 to 100 lbs. of it are sufficient to furnish phosphoric acid to one acre of turnips; but the four to eightfold quantity is required to furnish the turnips with the necessary alkaline bases, and it is still doubtful whether they can at all be provided with the latter, by means of the salts with the alkaline bases, which the guano contain.

At a time when the necessity of the mineral substances for the growth and development of plants, and the direct relation which the effect of manure has to its amount of the same substances, had not been ascertained, a prominent value was ascribed to the organic matters which it contains. For a long time it was thought that the produce of a field of those substances containing nitrogen, which serve as food for man and animals, stood in a direct proportion to the nitrogen contained in manure. It was believed that its commercial value, or its value as manure, might be expressed in per cents. by its proportion of nitrogen, but later and more convincing observations have induced me to contradict this opinion.

If the nitrogen and carbonic acid formed by the decay and decomposition of the vegetable ingredients of manure were the cause of its fertilizing power, this ought also to be seen if the mineral substances were excluded. Direct experiments have shown that the nitrogen of the excrements can be assimilated by the plants in the form of ammonia, but that ammonia, as well as carbonic acid, although it is indispensable for the development of all plants, can accelerate the growth of plants and increase the produce of a field of grain, roots and tubercles *only*, if, at the same time, the mineral ingredients contained in the manure which is supplied, are in a state in which they are suited for assimilation. If the latter are

excluded, carbonic acid and ammonia have no effect on vegetation.

On the other hand, experience has shown that on many fields produce which is rich in carbon and ammonia, can be increased to an extraordinary amount, without any supply of such matters as furnish these substances.

On fields which are provided with a certain quantity of marl or slacked lime, or with bone-earth and gypsum—substances which cannot give up to the plants either carbon or nitrogen—rich crops of grain, tubers and roots are obtained in many places, entirely in contradiction with the view which ascribes the effect of the manure to its amount of ingredients containing nitrogen or carbonic acid.

To explain this process, which is so opposite to the common opinion, the marl, the lime, the gypsum, the alkalies and the bone-earth were regarded as stimulants, which acted on the plants like spices on the food of man, of which it was believed that they increased the power of assimilation, and allowed the individuals to consume larger quantities of food.

This view is contradicted, if we consider that stimulants mean such substances as do not serve for the nourishment of the organism or for the formation of organic elements, and can only increase the weight of the body, if at the same time a certain increase of food is given. In supplying the fields with the above mentioned substances, the weight of the plants became increased in all their separate parts, without their having been provided with the quantity of food, which according to theory, was necessary to this extraordinary increase—viz., with carbonic acid and ammonia.

Chemical analysis shows that these so-called stimulants are either actual ingredients of manure, as gypsum, bone-earth and the active substances of the marl, or that they are the means by which the mineral elements contained in the soil are resolved into a state adapted for being assimilated by the plants; this is generally effected by the application of slaked lime. They consequently exercise on the vital process of the plants not a mere stimulus like the spices, but are consumed for the development of the leaves, seeds, roots, &c., they become constituent parts of them, as can be shown with certainty by chemical analysis.

The success which has followed the application of these substances to the fields has explained, in a most striking manner, the origin of the carbonic and nitrogen in the plants.

In the marl, in the bone-earth, in the gypsum, in the nitrate of soda, no carbon is provided to the fields, and yet, in many cases, the same produce, in some even a higher one, is obtained, than by the application of a manure containing carbon and nitrogen. As the soil, after the crop, does not contain less carbonaceous or nitrogen substances, it is evident that these products, which had been obtained without any carbonic or azotic manures, must have got the carbon and nitrogen of their leaves, roots and stalks from the atmosphere; it follows, therefore, that the productiveness of the fields cannot be increased in proportion with a supply of carbonaceous and azotic substances, but, that the fertility depends only on the supply of those ingredients which should be provided by the soil.

The soil not only serves the purpose of fixing the plants and their roots; it participates in vegetable life through the absorption of certain of its elements. If these elements are present in sufficient quantity, and in appropriate proportions, the soil contains the con-

ditions which render the plant capable of absorbing carbonic acid and ammonia from the air, which is an inexhaustible storehouse for them, and renders their elements capable of being assimilated by their organism.

The agriculturist must, therefore, confine himself to giving to the field the composition necessary to the development of the plants which he intends to grow; it must be his principal task to supply and restore all the elements required in the soil, and not only one, as is so frequently done; the ingredients of the air, carbonic acid and ammonia, the plants can, in most cases, procure without man's interference; he must take care to give to his field that physical condition which renders possible and increases the assimilation of these ingredients by the plant; he must remove the impediments which diminish their effect.

The favorable influence which bone-earth, gypsum, nitrate of soda, exercise on the fields has induced many farmers to the belief, that in applying them they can dispense with manure or with the other elements of the soil; it requires, however, only little attention to see the great error of this opinion. We observe that the effect of these substances is not equal on all fields; in one place the amount of produce is increased by the lime, by the bone-earth, and by gypsum; in another country, or on other fields, these substances in no way favor vegetation. From this arise the contradictory views of farmers regarding these matters as manures. If one farmer thinks the liming of his fields quite indispensable for rendering them fertile—another declares that lime produces no effect at all.

The reason of this difference is very simple. The examination of a soil upon which lime has had no effect, shows that it was already rich in this substance: it farther shows that its effect extends only to those kinds of soil in which lime is wanting, or in which it is found in too small a quantity, or in a condition which is not suited to its assimilation by the plant. Lime especially serves for resolving the silicates of alumina (clay) and consequently it cannot fertilize soils in which clay is wanting, for instance, sandy soils. It must be apparent to every one, that on the calcareous and gypseous fields of France and England one-half per cent. of gypsum or lime can have no influence at all on vegetation. This can be said with equal justice of bone ashes, and of every other mineral substance serving for the nourishment of plants.

If these substances exercise a favorable effect, some of the constituents of the soil or manure are restored, which are indispensable to the nourishment of plants, and which have been wanting in the soil. If this be the case the other bodies, equally necessary, must be present in sufficient quantity. On a field in which sulphate of lime has acted favorably, but in which clover had been cultivated without it, the crop was 2,200 pounds of clover-hay, in which 53 pounds of potash were removed. On the same field, after it had been dressed with gypsum, 8,000 pounds of hay were produced, which contained 191 pounds of potash. If this potash had not been present in the soil, the gypsum would have had no effect—the crop would not have been increased. On fields which are richly provided with all other mineral ingredients, with the exception of gypsum, the latter is applied with the greatest success. But if gypsum is present in the soil, the same effects are produced by ashes and lime, as is the case in Flanders. On fields in which phosphate of lime is wanting, bone ashes increase the produce of grain, clover or grass,

and on argillaceous soil, lime produces a decided improvement. All these substances act only on those fields which are defective in them, and if the other elements of the soil are present. The latter cause the former to come into action, and *vice versa*. The farmers who thought that by using lime, gypsum, bone-earth, &c., they might dispense with animal manure, very soon observed that their fields deteriorated. They observed that after a third or fourth successive manuring with those simple substances the produce decreased; that, as is the common expression, the soil became tired of the manure, that at last the field scarcely produced the seed.

It is evident from this, what is the action of the mineral elements in the soil. If in fact, in the first years, the produce of the soil had increased by the application of bone ashes, or by a single element of the manure—if this increase was dependent on the amount in the soil of the other mineral elements, a certain quantity of those was annually taken up by the plants and removed in the harvest, and a time must at last arrive in which it is exhausted by the repeated removal; the soil must become barren, because of all removed elements only one or the other, and not all of them in a right proportion, have been restored.

The right proportion of the supply is, however, the only true scientific basis of Agriculture.

If we subject the fluid and solid excrements of men and animals to an exact analysis, and compare the elements of them according to their weight, some constant relations between these elements impress themselves upon the mind, the knowledge of which is of some importance.

If the excrements of an animal are collected with some care and left to themselves for some days, their nitrogen appears to have been converted more or less perfectly into ammonia. In the fluid excrements, in the urine, the salts of the food, which are soluble in water, are found in the form of alkaline carbonates, or of sulphates, phosphates, and other salts, with alkaline bases. In the solid excrements or fæces, silica, if it was contained in the food, earthy carbonates, and phosphates are the principal ingredients.

The quantity of alkaline carbonates bear a certain proportion to the amylum, sugar, pectine, or gum of the food. The urine of an animal which has been fed with potatoes or turnips, is rich in alkaline carbonates; the potatoes, however, consist principally of amylum; the chief ingredients of the turnips are sugar and pectine. The urine of a horse which has been fed with hay and oats, is comparatively poor in alkalis, if compared with the former.

It is farther shown that the ammonia or the nitrogen of the excrements bears a certain proportion to the phosphates; the azote increases or decreases with the quantity of the phosphates in a manner that both can serve as a measure for each other, although not quite as an accurate one. It is not quite accurate, because the gum and the amylum also contain a certain, although small, quantity of phosphate of lime, as has been proved in my laboratory.

The ammonia of the excrements is of course derived from the nitrogenous substances in the food: the phosphates are likewise constituents of the latter. In the composition of the food an equally constant proportion exists between both. A given weight of gluten or casein in peas or in grain always corresponds with a certain weight of phosphates; if the grain or the vegetable is rich in these nitrogenous products of vegetable life, it is also rich in phos-

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phates; if it is deficient in them the quantity of the latter decreases in an equal ratio.

As the amount of nitrogen in manure is a measure for its amount of phosphates, and as the manure contains besides these the other ingredients of the soil which are required by the grain or by the other vegetables for their development, and taken up by them from the soil, it is easily conceived what was the cause of the error in regarding the nitrogen of the manure as the principal cause of its efficacy. The reason was, that the ammonia of the manure is always accompanied by the mineral elements which affect its nourishing qualities, because they render its assimilation into the organism of the plant, and its transition into a nitrogenous constituent possible. Without phosphates, and without the other mineral elements of the food of plants, the ammonia exercises no influence whatever upon vegetable life.

If it has been shown that the fertility of the soil depends on certain mineral substances; if the restoration of the fertility of exhausted fields by means of the excrements of man and animals depends on their proportions of these matters; if the effect of the manures accelerating the vegetation depends upon their proportions of ammonia, it is clear that we can only dispense with the latter when we provide all efficacious elements exactly in those proportions and in that form most proper for assimilation by the vegetable organism in which they are found, in the most fertile soil or in the most efficacious manure.

According to our present knowledge of the effect of the constituent parts of manure, I feel convinced that it is indifferent to the plants from which source they are derived. The dissolved apatite (phosphate of lime) from Spain, the potash derived from felspar, the ammonia from the gas-works, must exercise the same effects on vegetable life as the bone-earth, the potash, or ammonia, which we provide in manure.

We live in a time when this conclusion is to be subjected to a comprehensive and accurate trial, and if the result corresponds with the expectations which we are entitled to form, if the animal excrements can be replaced by their efficacious elements, a new era of Agriculture must begin.

I invite the enlightened farmers of England to unite with me for that purpose, and to lend me their aid. Whatever may be the result of these experiments, it is necessary for the future prosperity of Agriculture that they should be made. They will enrich us with a number of valuable facts—we shall ascertain where we have wasted efficacious matters in the common course of farming—we shall acquire an exact knowledge of those substances which are necessary and of those which are indispensable.

For a number of years myself and many talented young chemists have been occupied with the analysis of those mineral substances which are constituent elements of our plants of culture, and with the examination of the excrements of man and animals, as well as of a great number of soils acknowledged as fertile. These labors have been before the scientific world long since, but only a very confined application has been made of them in Agriculture.

The farmer is by his position not in the condition to procure and command the efficacious elements necessary for the restoration and increase of the fertility of his fields in a right proportion and suitable form. For this purpose, science and industry must combine their aid.

I have been so fortunate as to remove the difficulties which are opposed to the application of a mere mixture of the elements of manure. If we employ

the different elements of manure exactly in those proportions in which they are necessary according to experience, for a rich crop of wheat, peas, turnips, potatoes, &c., and if, at the same time, we leave them in their common state, they do not produce that effect which we might have expected; the cause of this is that the different elements of manure possess a very unequal stability, the ammonia evaporates, the soluble elements are carried off by the rain, and the effect is more in proportion with the amount of those ingredients of the manure which are less soluble.

I have found means to give every soluble ingredient of manure, by its combination with others, any degree of solubility, without altering its effect on vegetation. I give, for instance, the alkalies in such a state as not to be more soluble than gypsum, which, as is well known, acts through many years, even as long as a particle of it remains in the soil.

The mixture of the manures has been adapted to the mean quantity of rain in this country; the manure which is used in summer has a greater degree of solubility than that used in winter. Experience must lead to farther results, and in future the farmer will be able to calculate the amount of produce of his fields, if temperature, want of rain, &c., do not oppose the manures coming fairly into action.

I must, however, observe that the artificial manures in no way alter the mechanical condition of the fields, that they do not render a heavy soil more accessible to air and moisture. For such fields, the porous stable manure will always have its great value; it can be given together with the artificial manure.

Messrs. Muspratt and Co. have undertaken to execute my prescriptions on a large scale, and they are prepared to have ready a quantity of manure in autumn, for wheat, clover, &c., to satisfy the orders of the farmers. One of my former pupils, now Professor of Chemistry as applied to arts and manufactures, in this University, is to superintend the fabrication of these different manures; all necessary guaranties are therefore given as regards their composition.

To prepare for the coming autumn a sufficient quantity of manures, it is necessary that the orders be given at the earliest possible time. It would be very expedient in case that different kinds of soil are cultivated in a farm, to acquaint Messrs. Muspratt and Co. with the fact, as the proportions regarding silica are different for clayey and calcareous soils, to which latter, in order to render them fertile for grain, more of an easily dissolving silicate must be added.

All manure which is to be used during next winter contains a quantity of ammonia corresponding with the amount of nitrogen in the grain and crops which are to be grown. Experiments, in which I am at present engaged, will show whether in future times the cost of this manure can be greatly lessened by excluding half or the whole amount of ammonia. I believe that this can be accomplished for many plants, as for clover and all very foliaceous vegetables, and for peas and beans; but my trials are not so far advanced as to prove the fact with certainty.

(Signed) DR. JUSTUS LIEBIG.

Giessen University, 1845.

TO PICKLE ONIONS.—Peel, and boil in milk and water ten minutes, drain off the milk and water, and pour scalding spiced vinegar on to them.—Miss Beecher's Recipe Book.

HORTICULTURAL.

WORK IN THE GARDEN.

As a large majority of farm-gardens are managed, it may be said there is nothing to be done therein this month, but to dig up such beds as may be composed of stiff clay. In doing this they should be well manured prior to being dug. If, however, your beds should be so hardly frozen up as to defy the power of the spade and he who wields it, have manure wheeled or hauled, and put in piles on your beds. By this timely attention, you will be so much ahead of your labor when the spring opens.

Tools.—See that your garden tools have all been safely put away, and that they are in good order.

Hot Bed Frames.—If you have not already provided yourself with hot-beds, take time by the forelock, and make frames as advised in our last number. No garden is complete without a hot-bed, and no housewife should permit her husband to rest until he has caused one to be provided for her garden, for by all the laws of gallantry the garden belongs to the lady, and she has a right that its appointments and conveniences be of the most perfect kind. A single hot-bed which could be made in a day, at a trifling cost, would supply the garden with nearly all the early vegetables.

We have thrown out these hints, in the hope that they may be carried out and improved upon by those who have the power, and who know so well how to use it to promote the happiness and comfort of their families—and whose pure hearts never yet preferred a request that was not based in goodness, and sanctified by the aim and object they had in view.

ROOT-PRUNING FRUIT TREES.

We have heretofore called attention to this subject in the columns of the "*Farmer*." The following interesting results of experiments made on Pear Trees, will no doubt be highly gratifying and interesting to nurserymen, amateurs, and others:

ROOT-PRUNING FRUIT TREES.—The question of root-pruning fruit trees is one of decided importance not to gardeners alone, but to a vast number of amateurs and private persons, whose small plots of ground are too frequently encumbered with unfruitful trees—spared only from year to year under a hope that they will ultimately become productive. More especially is this the case with pears and apples, when planted either upon walls or as espaliers: it is generally in these situations where root-pruning is found peculiarly effective and valuable. We are not surprised that the subject should attract the attention of our readers. Two communications treating on this matter will be found in another part of the paper. By one of these we are supplied with what appears to us the most conclusive evidence in favor of root-pruning that the most sceptical can require. We therefore refer such of our readers as may be in any way concerned in this matter, to Mr. Drewett's article, given elsewhere. We insert below a descriptive notice of a sample of fruit sent to us by Mr. Drewett, be-

ing pears, and the produce of root-pruned trees. They were clear, handsome fruit, and the subjoined dimensions correspond to the several sorts measured by us at the time they were received. The circumference of each fruit was taken round the thickest part, and the length, from the base of the stalk to the eye:—

Beurré Diel, circum. $9\frac{1}{2}$ in., length 5 in.
Brown Beurre, circum. $9\frac{1}{2}$ in., length $4\frac{1}{2}$ in.
Inconnue Cramoisine, circum. 8 in., length 4 in.
Glout Moreau, circum. $7\frac{1}{2}$ in., length 4 in.
Passe Colmar, circum. $7\frac{1}{2}$ in., length $4\frac{1}{2}$ in.
Swan Egg, circum. 8 in., length 4 in.
Chaumontel, circum. 8 in., length $5\frac{1}{2}$ in.
Navarre Beurre, circum. $7\frac{1}{2}$ in., length $3\frac{1}{2}$ in.

Nothing could exceed the clear and healthy appearance of the fruit. The result, as detailed by Mr. Drewett, is most successful; it is not, however, other than a most reasonable and natural one. It is merely what, we venture to assert, will be the result with pears and apples in ninety-nine cases in every hundred, where similar experiments are fairly made; such are the effects which our own experience, at least, would lead us to expect. As we cannot expect that our own opinions upon any question are to be implicitly received by all, however corroborative the evidence of others, we therefore earnestly invite the consideration of our practical readers to this practical question. A little discussion on so important a matter would necessarily lead persons to thought and experiment, and this would tend greatly to a better understanding of cause and effect in reference to the matter at issue.—(*London Gard. Journal*, 1847, p. 243.)

DOMESTIC NOTICES.—Colmar d'Arenberg Pear.

We have fruited this beautiful variety the past season in our collection, one of the pears being quite large; but some of the most remarkable specimens was sent to us by N. Stetson, Esq., of Bridgewater. One of these weighed fourteen and a half ounces, and measured four and a half inches long; and they were produced on a small espalier tree only planted two years. The great size, early bearing and productiveness, as well as great excellence of this pear, will render it indispensable in every choice collection. It ripens at a good season, about the first of November, just after Swan's Orange, and keeps up the succession of fine large pears.—*Ed. Mag. of Hor.*

BONES AS MANURE, AND THEIR USE IN THE CULTURE OF PELARGONIUMS.

The researches of the chemist and the practical testimony of the farmer having more fully established the value of bones as a manure, not for Turnips only, but for various other crops, it behoves us to ascertain whether they have been employed in gardening as extensively as they deserve. If we find they have not, we ought to lose no time in making use of them. The greatest obstacle to the more general use of bones in gardening, as well as in farming, is their undergoing decomposition so very slowly. But this difficulty is got over by dissolving them in sulphuric or muriatic acid. This plan, however, though excellent as far as Turnip culture is concerned, must be defective, inasmuch as it confers no lasting or permanent benefit on the land. Professor Way prefers using only two parts of the bones undissolved, on the principle of their more continued and permanent benefit. I would, however, very particularly direct attention to a sort of bone manure not in general use

(perhaps owing to its limited supply,) which, being very fine, requires no digestion with sulphuric or muriatic acid, and which is both immediate and permanent in its effects. This bone manure is the saw dust of a button factory. When I lived, in 1839, at Leigh-court, in Somersetshire, the late P. J. Miles, Esq., had, from a button factory in Bristol, a large quantity of this dust for his Turnips, and its effects were astonishing. The progress of the plant after the first shower of rain, was extraordinary; so great, indeed, that it induced Mr. Hatch (who was then gardener there,) to try it on many things in the garden, and with favorable results. Among other things he tried it on Pine plants, and the effects produced were wonderful. In 1842, Mr. Spencer, gardener at Bowood, used this same bonedust for Pelargoniums, and with good results. The roots were emitted into the soil containing the bone dust, were as large as moderate-sized goose-quills: and the plants in consequence of their having such strong and vigorous roots—powerful absorbents of food—grew to a size almost incredible. And not only were they large, but they were strong and vigorous enough to support their trusses without the aid of sticks, although many of the trusses consisted of 12, 13, and 14 flowers each. The plants had only a few sticks at the commencement of their growth, merely to keep the branches at regular distance from each other. The flowers were half as large again as usual. I well remember Mr. Brown late of Slough Nursery, who happened to call at Bowood while the Pelargoniums were in bloom, expressing his surprise at the number of flowers on each truss, he never in his life saw anything like them. Some of these plants kept up a succession of flowers from four to six months. A few that were "spotted" were put in soil containing the bone-dust, and in 10 days, they had put out so many young leaves as to completely hide the "spotted" ones. This dust was purchased cheap at the factory in Bristol in 1839, but its value being soon ascertained, in 1842 the price was more than doubled, and the dust inferior. I do not know what quantity of dust is to be had annually in this country, but this I do know that if we could reduce our bone manure to the finely divided state of this dust, we should then have a most valuable fertilizer without additional labor or expense.—(*Lond. Gardeners Jour.*)

THE MARKET FOR OUR PRODUCE.

In our last we presented to the public some reflections upon the probable demand in Europe for the productions of the Agriculturists of the U. States.

In connection with the subject, we subjoin the following extract from Bennett's N. Y. Herald, a journal whose commercial and financial departments are conducted with eminent ability.

IMPORTANT COMMERCIAL MOVEMENTS IN ENGLAND.—From intelligence which we have received by the late arrivals from England, both public and private, we have every reason to believe that another great speculative movement in several articles of general consumption—such as breadstuffs, perhaps cotton and other articles—is about making by the great capitalists, and speculators of London, and their connections throughout Europe.

The recent movements of the Bank of England, the action of the British government and of the London capitalists, in connection with the history of commercial transactions during the last three years,

give us strong reasons for believing that another series of speculations in commerce, will mark the coming six or nine months, perchance the next twelve months. It is probable that at this very time several agents have arrived from England with private directions to buy up all the wheat, flour and cotton at present prices; while their principals are engaged in England in carrying forward a movement in money affairs so as to raise prices. Then they will sell out, break down the markets, and in this manner produce another revulsion in England.

We would advise our agricultural readers to sell at prices, but to be sure *they give no credit, but get the money for all they sell.* Perchance it may be that prices may rise, slowly at first, and a little more afterwards, so that they might thereby make a little more by not selling at present; but upon the whole, we are of the opinion that it would be safer and better to sell for cash at present prices.

We have much to say on this subject, having studied and examined the speculative turn of capitalists, in our late tour in Europe. London is the centre of a nest of brokers, speculators, shavers, and gamblers, of all kinds, and on the largest scale. The government, whether whig or tory, is linked with the great speculators, and performs a part in the game of deception.

EXPERIMENT ON ROOT-PRUNING PEAR TREES.

I beg to furnish you with a statement relative to a successful experiment I have made on some pear trees at this place, growing on a wall fourteen feet high, and about sixty yards in length. The sorts are for dessert. Having been previously informed that the trees were never known to produce any thing like a crop, I was resolved to make some alteration in them; and in Oct. 1843, I tried an experiment on them in root-pruning. I had a trench dug out the whole length, about four feet from the wall, and three feet deep, when I undermined them, until I could have full scope for severing all those roots which had a tendency to go downwards: those I found rather numerous. I had them pruned with great care, and as the soil was removed, I continued to raise them nearer the surface, from their cold abiding place. Having provided myself with a good stock of loam, I supplied the roots with a liberal share of it, and by the time the trench was nearly filled up again, the points of many of the side roots were brought near the top.

The first season following, the trees made very little progress. The second year after they were pruned and nailed, I made three incisions with a knife down the whole length of the stems, as they appeared to be what persons in the profession term hide-bound. As the season advanced, the trees began to make up for the rest of the previous season, sending forth fine healthy shoots, which I allowed to remain on the trees until the autumn, not even stopping them. The third season a great improvement appeared to be going on, both in forming healthy shoots, and forming fruit buds. The shoots I allowed to remain their full length, until the wood was ripe, the same as before.

I have great pleasure in being able to state, that the trees this season have produced a splendid crop of fruit, and of fine quality. I gathered, a few days ago, from one half-standard, which does not extend more than fifteen feet wide, 228 fine pears, fit for table, when ripe; and from another tree (*Beurre Diel*) which only extends to nine feet wide, eighty-six fruit was gathered: some of them weighed ten ounces each.

—*Lond. Gard. Jour.*

MARSHES, AND THEIR EFFECTS UPON HUMAN HEALTH.

It is well known that the effect of marshes on health is great and decided. In districts which abound in them, the inhabitants suffer not only from intermittent fevers, but from rheumatism and its kindred diseases. Their influence is not of that insidious character which some suppose, or at least the effects are always evident in the countenance and frame of the individuals. Emaciation, enlarged abdomen, feebleness, are some of the general effects which manifest themselves in persons who claim to enjoy health. But it is not necessary that these wet and marshy grounds should be extensive in order to exhibit a deleterious influence upon health; even ditches, stagnant pools, motionless water, each exhale matters which change healthy to unhealthy actions of the system. Puddles and pools, drains and sewers, operate most injuriously, and contain poisonous elements which are exhaling so long as a particle remains to moisten the surface. Our country abounds in marshes. Some places which are now healthy and free from intermittents, were once abounding in them. The progress of agriculture has in many instances entirely banished this severe disease, and as good husbandry extends, a two fold influence, beneficial in its character, is sure to follow healthfulness and wealth. Man never benefits himself in a legitimate way, without doubling his blessing, first receiving them into his own bosom, and then that of his neighbor. It is not however at all essential that a marsh or pool should exist, in order that poisonous vapor should be generated. Animal and vegetable matters in combination in deep mould, such as is found in the western prairie, is sufficient to generate a pestilence when exposed to the sun beams, and when moistened merely with dew, is sufficient in itself to form the miasm and float it in the atmosphere. Turf new ploughed, or turned over, especially if the areas are large, turn a country before healthy, into a region of sickness. From researches which have been made by Thenard and Dupuytren, and by M. Regaud d'I' Isle, the miasmatic exhalations have been found to contain animal matter, and hence it is probable that it is really composed of both animal and vegetable matter. It has been shown by Vanquelin that the exhalations from the Pontine marshes afforded animal matter in a putrescent state. In the foregoing instances however, this matter was obtained from the water or soil, but Boussingault succeeded in obtaining it from the atmosphere over the great southern American marshes, a fact which goes to show that the poisonous effluvia is exhaled in a tangible state. These poisonous gases contain in addition to animal matter, light carburetted hydrogen, azote and carbonic acid, and sulphuretted hydrogen, and sometimes a trace of phosphuretted hydrogen. By vaporization of dew in the rains upon our western prairies, and the water of marshes, these organic and poisonous effluvia are disseminated in the atmosphere, and are wafted by the breeze over wide areas.

An interesting and important fact may be stated in this place, viz: that age influences or modifies the effects of marsh miasm.—Infants or children under two, are less affected than those of three or four years.—This may arise from the greater exposure of the latter. So old persons are less affected than those of middle age, or who are engaged in artizan pursuits. Children when attacked with disease fall victims to its influence, more easily than adults; their mortality is greater in the proportion of 1000

to 1556, and it has been observed that fewer deaths occur in infants below one year than in those of three or four years; after ten years the influence of marshes is less to be feared, and the capability to resist marsh miasm increases up to twenty-five years; from twenty-five to fifty-five the susceptibility again increases, though it is never so great as in children between the ages of two and three years.

Old persons as already stated, are more exempt from marsh influence. Food and exposure furnish conditions which favor its influence. Bad and ill conditioned food, night air, especially when heavy dews are formed, favor very strongly miasmatic diseases. When ill clothed and ill fed troops are forced to march by night in a marshy country, it may be expected their ranks will be decimated. The emigrants from New England to the rich western prairies, or to the rich bottom lands of the western rivers, may expect disease and death, provided they plough up those prairies or bottoms, and thereby expose themselves to exhalations from a surface charged with animal and vegetable matter. These are calamities which the first settlers can scarcely expect to escape; circumstances may delay the development of diseases, when a favorable season may occur, but they seem to be inevitable in the end.

From observation it appears that disease will be in proportion to the concentration or amount of miasm to which an individual may have been exposed. Hence precautionary measures will not be useless. A residence by the side of a marsh or upon a prairie where the turf has been newly turned up should be closed upon that side towards the miasmatic grounds, when the wind blows from them. So the night air should be avoided, especially after hot and sultry days when much dew will be formed, or rather where much exhalation will take place when the miasm will be concentrated in it at night fall. So it is important that the vigor of the system should be promoted, and that during the period when there is greater exposure to poison, the different vegetable tonics should be employed, as quinine, which is the most powerful, or for want of this, pulverized bitter barks, or infusions of them, as the eupatorium, bone-set, &c. Such a plan would at least mitigate the effects of the effluvia.

Great fatigue or hard labor, favor also the influence of marsh poison. Closing windows, keeping within doors, avoiding dews, moderate labors, and a tonic regimen, may be set down as some of the preventives to the influence of the poisonous exhalations of marshes.—*Ann. Jour. Ag. and Science.*

ANTIDOTE TO POISONS.

Animal charcoal (freshly prepared ivory black) is an antidote to poisons, especially those belonging to the vegetable kingdom. Thus strychnia and nux vomica, and other poisons of this class, when taken mixed with charcoal are perfectly harmless provided the charcoal is administered in doses proportioned to the quantity of the poison. Three or four grains of strychnia are neutralized by 1 1-2 or 2 ounces of charcoal. Even the effects of arsenic, are greatly diminished by a speedy administration of charcoal. Corrosive sublimate is more surely rendered inert by white of eggs. Dogs, that have been poisoned by nux vomica, may possibly be cured by charcoal, though it is quite important that it should be administered early, and in large doses, not less than 1 1-2 or 2 ounces. In the absence of animal charcoal administer freely fine fresh charcoal from the fire place.—[N. Y. Farmer.

FLORICULTURAL.

Prepared for the American Farmer by S. Feast & Son,
Floriculturists, Baltimore.

WORK IN THE GARDEN FOR JANUARY.

Camellias.—Keep these at a moderate and regular temperature, and give them plenty of water and syringe frequently, taking care not to wet the flowers.

Azaleas will now require a little more water.

Cactuses should be kept dry this month.

Pelargoniums.—Repot these, and keep them at a temperature of from 50° to 60° fahrenheit, and water abundantly when dry. Attend to fumigation as often as the green fly appears.

Roses in pots should now be put into a warmer temperature, and receive additional supplies of water. Give air in fine weather, and fumigate when necessary.

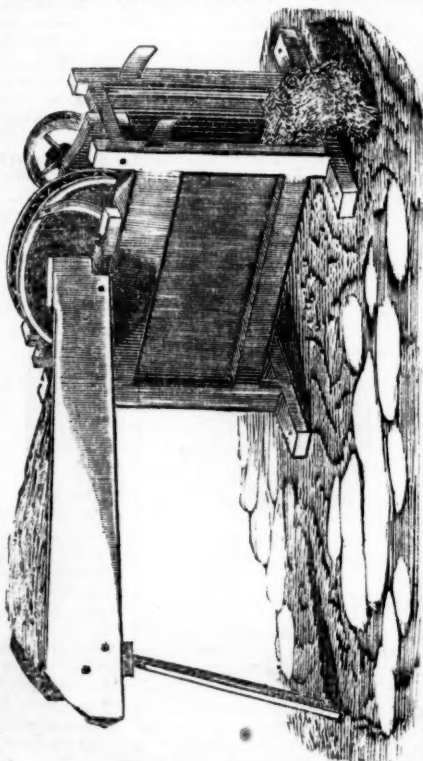
Lilium Lancifolium and varieties should now be put in light rich soil in pots 4 or 5 inches in diameter.

Hyacinths, Tulips, and other hardy bulbs, if the weather will admit, should be planted at once.

Plants in frames should be aired during fine weather.

Greenhouse Plants—Give air at all times when the weather is fair, and water carefully and fumigate whenever the green-fly becomes troublesome.

ROYER'S FODDER CUTTER AND GRINDER.

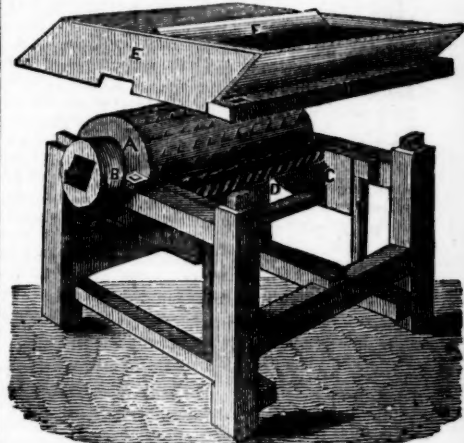


Farmers, Cut and Grind your Corn Stalks!

This implement for Cutting and Grinding Corn Stalks, received the first premium at Easton Fair, in the Fall of 1846, and again at the recent Fair, held at Easton, the present season, it received a premium for an improvement on the

same, which now renders it a most perfect article for the above purpose. Price \$30 and \$35. Sold by E. WHITMAN, Corner of Light and Pratt-sts.—Baltimore.

[See Report of the Committee on Agricultural Implements, made at the Talbot Co. Exhibition, published in this month's number of the American Farmer.]



GOLDSBOROUGH CORN SHELLERS.

This figure is a tolerable representation of Goldsborough's Corn Sheller and Husking machine, regarding which very flattering allusion is made in another part of this paper. It is ranked among the most simple and powerful horse power machines. They are extensively manufactured in this city by Messrs. R. Sinclair, Jr. & Co. We will take another opportunity to allude to several new constructed corn shellers and corn and cob crushers, made by those gentlemen.

METEOROLOGICAL TABLE.

From the 27th of November to the 27th of December.
Kept at Schellman Hall, near Sykesville, Carroll county.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock.

	Wind.	Temperature	Remarks.
27	NW	NW W	25 36 34
28	W	SW W	32 41 36
29	NW	NW NW	25 27 20
30	W	W W	9 25 23
1	SE	SE SE	34 34 36
2	SE	SW S	45 55 50
3	S	W NW	47 43 40
4	NW	NW W	28 41 35
5	W	W W	28 30 38
6	W	W W	25 40 35
7	W	SW SW	20 42 35
8	W	W S	24 50 45
9	SW	SE SE	43 53 55
10	SE	SE SE	50 63 60
11	S	SW SW	64 56 43
12	E	E E	45 46 45
13	E	SE S	47 55 60
14	S	S S	60 63 63
15	W	W W	34 45 40
16	S	NW NE	35 34 32
17	E	S W	30 35 34
18	W	W SW	30 37 30
19	SW	SE S	29 39 35
20	W	SW SW	25 38 35
21	N	by NE N W	25 25 19
22	W	W W	15 30 25
23	NW	SW NW	17 29 25
24	W	SW SW	23 39 30
25	NE	NE NE	23 29 25
26	NW	W W	7 21 15
27	W		8
			Clear
			do Cloudy
			Clear
			do
			Cloudy Rain
			Rain 1 inch
			Fog Cloudy
			Clear
			Clear Cloudy Snow 1 inch
			Clear
			do
			Fog Rain Cloudy
			Rain 1/4 inch
			Cloudy Clear
			Rain 3-8 inch
			Fog Rain 1-8 in. Cloudy
			Cloudy Rain 1 inch
			Clear
			Clear, hail, snow, rain, snow
			Snow 4 inches
			Clear
			Cloudy
			Cloudy Snow 1 inch
			Cloudy Snow 1/2 inch
			Clear
			do
			Cloudy Snow
			Clear
			do

BALTIMORE MARKET—DEC. 30.

The steamer *Hibernia*, from England, has arrived, bringing advices 15 days later than before received. The commercial news by her is important; though numerous failures had taken place since the last advices, yet it was hoped that the crisis was passed—some, however, doubt it, and think it only stayed a while.—The nature of her news caused a slight decline in breadstuffs—before the steamer's arrival, Howard-street Flour was selling at \$6.37, but now \$6.12 is asked, but buyers are not willing to go beyond \$6—City Mills is held firmly at \$6.37—there is no Susquehanna arriving—It is estimated that about 65,000 or 70,000 bbls. is the entire stock of flour in all hands at this moment.—*Rye Flour* has declined, sales at \$5.52—*Corn Meal*, \$3.37; Pa. 3-25a3.31—*Wheat*, receipts light for the season, and but little doing—prices have not varied much during the last two weeks—good to prime red wheat is quoted at 130a138c., and white 138a142c.; ord. to good reds 120a130, and family flour white 148a150—*Corn*, price has slightly receded, tho' the demand has been fair, and the supply good; we quote, for white 56a59c. and 60a62c. for yellow—*Rye*, Md. 88a90c.; North River, sales at 93c.—*Oats*, Md. 35a40; Va. 35a42, in request—*Cloverseed*, in request, at \$4.25a4.50—*Flaxseed*, 130a131, in fair demand—*Beans*, sales at \$1a1.12, a decline—*Peas*, sales of 1000 bushels Va. at 85a87c.—*Buckwheat Meal*, \$1.75a\$2 per 100 lbs.—*Bacon*, 8c. & Shoulders, old, 61a61c.; sales of new shoulders 71a71, and hams 10a10—*Beef Cattle*, 430 head offered on Monday, and 310 sold to city packers and butchers at \$2.50a5.75 per 100 lbs. on the hoof, equal to \$5a\$7.25 nett, and averaging 3.12 gross, showing an advance—of the above 92 head were driven to Philadelphia, and 28 head left over, which have since been sold at corresponding prices—*Beef*, dull, mess \$12, No. 1, 9a10. prim 7a7.50—*Hogs*, supply good; sales of live at \$5a5.25; killed 5.37a5.50 per 100 lbs.—*Pork*, old mess \$14, prime \$10—*Lard*, Western, in bbls. 71c.; in kegs 71 per lb.—*Butter*, Glades 14a16 roll, 14a16—*Fish*, herrings 4.87a\$5—mackerel, dull, No. 1, 8a8.50; No. 2, 6.75a7; No. 3, 5.25a5.50—*Cheese*, Ohio, in boxes, 71; Eastern 8a10—*Cotton*, stock in first hands is small, not over 500 bales. Sales of the week amount to 510, as follows: 30 bales Upland, fair, at 91c.; 30 do. middling 9c.; 30 do N. O., fair, 91c. 25 do. Middling, fair, 91c.; 109 do. Florida mid. fair 91c.; and 100 do. Mobile mid. fair 81 cts. per lb.—The importations are small.—*Feathers*, 33a35—*Fuel*, plenty, hickory wood, \$5.75; oak 3.50a4; pine 2.75a\$3 per cord—stone coal 6a6.25—*Hemp*, dew rot, 61a7; water do 9a91c.; manilla 91a93; Russia \$235a240 per ton, not much in market—*Hay*, supply light this week, prime timothy \$17 per ton—*Hops*, Eastern, 81a9c. *Molasses*, N. O. 25a26—*Spirits of Turpentine*, 40a42—*Tar*, 212a225—*Rosin*, 75c. to \$2 per bbl.—*Oil*, winter sperm 125a130; linseed, 60a63; *Lard Oil* 87c.—*Potatoes*, mercer, \$1a1.12 per bushel, and in demand, few in market—*Rice*, 3.75a4 per 100 lbs. in request—*Sugars*, New Orleans 4a6.50; Cuba 4a5—*Wool*, nothing doing—*Whiskey*, dull, at 261a271c. in hhds. and bbls.—*Tobacco*, but little doing—we quote Md. \$2.20a\$3 for inferior to common; \$3a7.50 for good common; 5a9 for good; 6a20 for fine and better qualities—Ohio, com. \$2.25a2.50; good common 2.75a3; reds, 4a10c.; yellow 6a12. The inspections for the last 4 weeks, are Maryland 1801 hhds; Ohio, 875; Ky. 25—Total 2691 hhds.

OVERSEER WANTED.—A man who can come well recommended, will hear of a good situation by applying at this office—a man with small family not objected to; wages liberal.

10,000 Copies in 4 Months!

COLE'S AMERICAN VETERINARIAN.

OR Diseases of Domestic Animals, showing the Causes, Symptoms, and Remedies, and rules for restoring and preserving health by good management, with full directions for Training and Breeding, by S. W. Cole, Esq.

This is emphatically a Book for every Farmer, and no Farmer's Library is complete without it. The demand for TEN THOUSAND COPIES in the short space of four months, speaks volumes in favor of the work. The Farmer has in this neat and compact vol. a complete encyclopedia, in which he may find the whole subject of the Treatment of Domestic Animals, fairly discussed, and rules and remedies fully and clearly prescribed.

Highly commendatory notices, have been received from many of the most distinguished Farmers and Editors in the country. The following short extracts show in what estimation the work is held.

[From Ex-Governor Hill, of N. H.]

"Mr. Cole has shown himself well qualified for the compilation of this work. We understand that it has already had a free and extended sale; many times its price to almost any Farmer, may be saved in its purchase."

[From J. M. Weeks, of Vermont.]

"The American Veterinarian is the best book of the kind I have ever seen. Every Farmer ought to have one."

[Christian Mirror, of Portland.]

"We think no Farmer would willingly be without this Book, after glancing at the table of Contents."

WANTED, active, intelligent, and enterprising AGENTS, to sell this work, two in each State of the Union. A small capital of from \$25 to \$50, will be necessary for each Agent. Address, post paid, the Publishers.

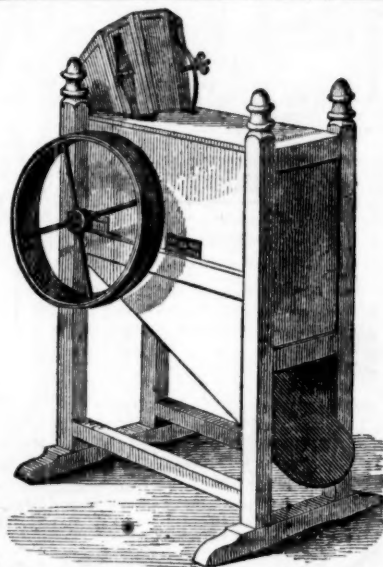
JOHN P. JEWETT & CO.,
23 Cornhill, Booksellers Row, Boston.

For Sale by CUSHING & BROTHER, Baltimore.

The above work is also for sale at the bookstore of the "AMERICAN FARMER," No 2 Jarvis' Buildings, North street.

LIME—LIME—The subscriber is prepared to furnish from his depot at the City Block, Baltimore, ALUM STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 25c. per bushel, in hhds., or at \$1 per bbl.
E. J. COOPER,
City Block, Baltimore.



100 WHITMAN'S PREMIUM CORN SHELLERS
for sale, price \$10, \$16, and \$18.

E. WHITMAN, JR.,
N. E. Corner of Light & Pratt-sts.—Baltimore.

J. I.

PLOUGHS! PLOUGHS!!



The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also, THRESHING MACHINES and HORSE POWERS—these latter used by the following gentlemen, to whom reference is made, as to their superior value, viz. Messrs. T. Beard, Th. Beard, Dr. Watkins, J. T. Hodges, T. Welsh, W. Mackall, J. Iglehart, A. Sellman, H. Sellman, W. Hopkins, J. Kent, Geo. Wells, Geo. Galt, Dr. Fenwick, A. Franklin, J. C. Woods, of Anne Arundel county; G. W. Weems, J. P. Barber, R. B. Chew, J. W. Boswell, Y. Howes, of Calvert co. Md. (Agent of Evans Davis, Baltimore co. for sale of the Woodcock Plow, Pennsylvania Grain Cradles. CHAS. H. DRURY, Gillingham alley, entrance from Howard st. near Pratt, and store, Hollingsworth st. corner Pratt

THE subscriber will continue to Manufacture his Reaping Machines in Baltimore; Swan street, near Marsh Market. PRICES:

Large machine with six feet cutter and forward wheels and zinc platform - \$175 00
Medium size, with 5½ feet cutter—broad rim iron wheel suited for soft ground, with the gearing placed out of the reach of mud—the crank to run entirely in brass with brass pinion on its and zinc platform, and forward wheels, - \$150 00
The same machine, without forward wheels, - \$130 00
Small machine, in its usual form, without forward wheels, with 5 foot cutter—crank running in brass, with brass pinion and zinc platform, - \$120 00

The above machines will be furnished with one extra bevil wheel and two iron pinions, one extra rake, six cutters, and a superior screw wrench, a cold chisel and punch and fifty rivets to replace cutters.

The small machine, with 5 feet cutters, made as usual, without extras, with usual quantity of brass work, \$100 00
Farmers who design to procure this machine, should make application to the subscriber early in the fall to make sure of getting a machine, as the supply at harvest time has never been equal to the demand. A much larger demand is anticipated for the next harvest, from the abundant proof from all parts of the country, that wherever this machine makes its appearance, other machines, for the same purpose are generally abandoned. This fact which I am prepared to substantiate will be the best certificate which can be placed before the farmer.

OBEDE HUSSEY.

P. S.—A Patent has been recently granted for the late improvements—persons wishing to purchase the right, will please address
OBEDE HUSSEY, Baltimore, Md.

P. S.—An improvement has been made by Genl T. Tilghman, of Maryland, by which the grain is laid on one side—It is done by adding 4 or 5 feet to the width of the present platform, and placing two rakers on the machine instead of one—they sit back to back—the first raker pushes the sheaf back on to the newly added portion of the platform, where it is received by the second raker and drawn to one side by a common hay rake. This improvement will be found convenient by those who are short-handed, and exactly suited to those who do not bind their wheat at all, or wish it to be awble before binding. Genl T. has used this improvement three years, greatly to his own satisfaction, and thinks it a great advantage in any point of view. Any farmer who has a saw and axe, and one of my machines, can try the experiment himself. This improvement will be added to new machines and durably constructed at an extra expense of ten dollars, if ordered. O. HUSSEY.

NOTICE.

CLAIRMONT NURSERY,
Near Baltimore, Md.



We again take pleasure in notifying our various customers and the public, that the time has nearly arrived for transplanting Trees, &c., and consider our stock of fruit trees superior to what they have ever been before both in quality and in quantity, as we have had an opportunity of testing their correctness from our standard Trees which are extensively bearing.—We deem it unnecessary to enumerate the various kinds of fruit and ornamental Trees, Shrubbery, Roses, Green House plants, Flower roots, &c. &c., suffice it to say our Nursery and Seed Garden occupies about 100 acres of the Farm, and our determination is to give satisfaction if possible, both in price and quality—printed Catalogues, giving our prices, will be sent gratis; where large quantities are wanted considerable discount will be made. Letters addressed to R. Sinclair, Jr. & Co., Light St., Baltimore, or the subscribers, Balto. Md. will meet with prompt attention.

Persons wishing to act as Agents will please let us hear from them.

Nov 1

WM. CORSE,
Successor to Sinclair & Corse.

TO FARMERS AND PLANTERS.

A. D. CHILDS' PATENT HORSE-POWER.

PRICE \$110—or without the wood work of the sweeps \$100.

The subscriber would invite his patrons and the public generally to call and examine this Horse Power for themselves, and also his Threshing Machines, as he has several on hand of superior workmanship. He has also on hand a quantity of Ploughs of all sizes and various patterns and well made, with a great variety of other Implements, such as Wheat Fans, Harrows; Swingle-trees, Corn Shellers, Corn and Cob Crushers, &c. &c., which he will sell very low, as he wishes to close out his old stock, which he has been several years reducing.

Cylindrical Straw Cutters and Plough Castings on hand at Wholesale & Retail as heretofore. J. S. EASTMAN,

In the rear of his old Store, No. 180 PRATT STREET, near HANOVER-ST. Entrance by alley through the Front Store.

Sept 1

THE SUBSCRIBER takes pleasure in returning thanks to the many gentlemen who have favoured him with their MILL-WORK; also to the farmers and planters for their liberal support in the Machine line, and would respectfully inform them, that his endeavors to please will continue unremitting. He is prepared at all times to build any of the following kinds of MILLS: Overshot, Pitch Back, Breast, Undershot, Recting, Steam, Wind, Tide, Horse-power, or Tread Mills; and having the best of workmen employed at pattern and machine making, he can at all times furnish the best articles at the lowest prices, such as Horsepowers, Pettigrew Shellers, Murray's Shellers, 4 kinds hand and power Shellers, portable Mills adapted to any power, Corn and Cob grinders, Straw, Hay and Fodder Cutters, Carry-log and Mill Screws; also manufactures Hoisting Machines, Hoisting Cranes, Pile Drivers Turning Lathes and Steam Engines; and any kind of Machine, Model or Mill-work built to order. Any kind of Castings and Smith-work at the lowest prices. I warrant all Mills planned and erected by me to operate well. JAS. MURRAY, Millwright, York near Light st. BALTIMORE.

Also for sale, Jas. Murray's patent separating Shellers, which shells and puts the corn in perfect order at the same time, for the mill or for shipping—Persons living near the city can bring with them one or two barrels of corn, and give the shelter a fair trial before purchasing.

He has also for sale, the following second hand Machinery: 2 pair 4 ft 6 in. French burr Millstones, with all the gearing; 1 pair 3 ft 6 in. French Burr Millstones, with all the gearing; and some Saw Mill work—the whole are good, and any or all of the above will be sold low.

HALIFAX, N. C., August 25th, 47.

Mr. JAS. MURRAY,—Dear Sir:—This is to certify that I have used your fans during the last spring and summer, and feel no hesitation in saying they are the best by far, I ever saw, I fanned with one fan, one thousand barrels of corn in one day—and in one day fanned one thousand bushels of wheat, as it came from the thrasher. They will do as much as any two I ever had, in the same time. Yours, &c.

W. B. HATHAWAY.

"Spade labour, the perfection of good husbandry."

PULVERIZA-
TION.



DECOMPO-
SITION.

THE "PREMIUM PLOUGH"—In PROUTY & MEARS' No. 5 1-2, "concessedly the best PLOUGH known in this country for beauty of work and pulverizing the soil," we have combined the most perfect swing as well as wheel Plough, connected also with the principles of self-sharpening and centre-draught, which with the facility of turning it into a Tandem 2, 4, or 3shores abreast Plough in a minute of time, renders it the NE PLUS ULTRA of perfection. During the past season it received the first premium for the BEST PLOUGH, at Philadelphia; a first, second and third premium at New Castle county, Del.; the Imperial Medal of Russia, of massive gold, value \$300; and at Prince George's society, Md. the highest testimony of approbation, in not permitting it to compete, having already received the first premium as "the BEST PLOUGH for general purposes." Their one-horse Plough No. 2 1-2, is strongly recommended for light soils and horticultural purposes, being built after the same model, self sharpening, and carrying a sod furrow 10 in wide with great ease and precision.

In addition to the above, the Premium list of the Prouty & Mears' Centre Draught Plough for the present season, is as follows, viz:

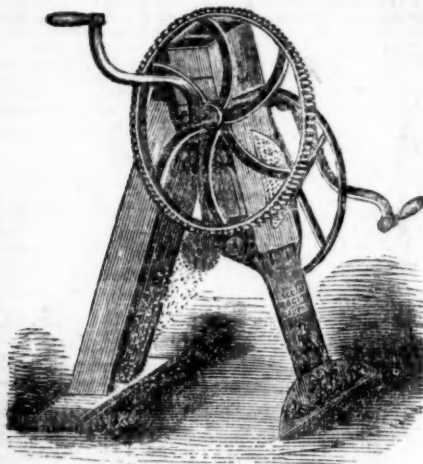
New Castle Co. Del., 6 premiums out of 8, including the first two premiums.
Concord, Mass., 5 premiums out of 8, furrows 10 in. deep.
Philadelphia, 1st premium for the best plough, of the trial.
Tannont, Mass., 5 premiums, including the three first premiums.
Newtown, Bucks Co. Pa., "the best Plough for pulverizing the soil and burying the stubble."

For sale at No. 35 LIGHT ST. Baltimore, Mr. EZRA WHIT-

MAN being appointed sole Agent for sales in Baltimore and vicinity.

dec 1

CORN AND COB CRUSHERS—CORN SHELLERS, STRAW CUTTERS, &c.



WE are manufacturing and offer for sale the following valuable agricultural machinery, viz.

Our Eagle Corn shellers, made with single and double plates, price, \$15 to 18
 Virginia cylindrical corn sheller, \$30
 Box and vertical corn shellers, \$10 to 16
 Goldsborough horse power corn sheller, \$40
 Smith's Columbiad do do \$55
 Pettigrew's N. Carolina do do \$90

Cylindrical Straw Cutters, with and without patent corn stalk Lacerators attached—prices as follows, viz:

Inch.	9 in.	11 in.	12 in.	14 in.
Lacerators,	0	\$6	\$8	\$10
Price,	\$25	\$35	\$45	\$55

Cutting machines without Lacerators are sold at \$3, \$5, \$7, \$9 and \$45 each. Farmers having our cylindrical straw cutters can have the Lacerators attached at the above rates, with a small additional price for time, &c. consumed in adding the attachment. This addition is valuable and should be adopted by every farmer who wishes to economise.

Corn and Cob Crushers, an excellent and durable machine, price \$30. Also on hand as usual a large and general assortment of Threshing machines, Plows, Fanning and Corn Mills, Drill machines, Tools, Garden and Field Seeds, &c.

Jl R. SINCLAIR, JR. & Co., 62 Light-st.

HAY, STRAW AND CORN-STALK CUTTERS.



WE have 14 different kinds of Straw Cutters now on hand, embracing our premium Cutter, and every variety sold in this city, at prices from \$7 to \$40 and warranted as well made, and sold wholesale or retail, on as favorable terms as can be bought elsewhere.

E. WHITMAN, JR.,
 N. E. Corner of Light & Pratt streets—Baltimore. Jl

AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.—GEORGE P. AGE, Machinist & Manufacturer, Baltimore-st. West of Schröder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from \$85 to \$200, and each simple, strong and powerful. His Horse Power & Threshing Machine, he is prepared to supply at the low price of \$125 complete; a Threshing Machine without the horse power, according to size, at \$30, 40, 65 and \$75; Improved Seed and Corn Planter, Portable Tobacco Press; Portable Grist Mills complete, \$12.

PREMIUM PLOUGHS AND FARMING IMPLEMENTS.



THE Agricultural Exhibitions at Easton, Talbot county, Md. 10th and 11th Nov., was the most extensive exhibition ever had South of the State of New York. Among the ploughs exhibited was the Davis; Beach; Wiley; Woodcock; Chenoweth; Winan; Drury's; Sinclair's Maryland self-sharpening; and a variety of others, making more than 60 ploughs on the ground for exhibition, and every variety of Straw Cutter; Wheat Thrasher and Separator; Fodder Cutter; Corn and Cob Crusher; Gang Plough; Ox Yoke; Grain Cradle and Cultivator, sold in this city; and after two days close investigation by the committee the highest premiums were awarded on the above articles as follows:

To E. Whitman, jr. for the best 2 horse Plough, Prouty & Mearns, No. 3.			
do	do	do	Straw Cutter, Ruggles, Nourse & Mason.
do	do	do	Fodder Cutter, Royer's Im.
do	do	do	Grain Cradle, Grant's.
do	do	do	Wheat Thrasher and Separator, Whitman's patent
do	do	do	Gang Plough, do pattern
do	do	do	Ox Yoke, Whitman's Yankee pattern.
do	do	do	Cultivator, Whitman's do
At same Fair last year the highest premium was awarded to E. Whitman, Jr., the best One Horse Plough, Prouty & Mearns.			
do	do	do	Corn Sheller, Whitman's
do	do	do	Wheat Fan, Grant's
do	do	do	Straw Cutter, Hovey's
do	do	do	Harrows.

None of which were offered for premium this year.

At the Montgomery County Fair this season, we also received \$20 for the best display of implements, and the first premium on two horse Plough; Corn Sheller and Wheat Fan. All the above and a greater variety of new and improved implements, for sale by the subscriber than is found in any establishment of the kind in the United States.

E. WHITMAN, JR.

Jl N. E. corner of Light and Pratt-sts., Baltimore

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